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The Charlotte Medical Journal.

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Migraine.*

By Richard T. Styll, Ph. G., M. D., Newport News, Va., Honorary Fellow and Ex-Treasurer Medical Society of Virginia, Member American Medical Association, Member Seaboard Medical Society, and Member Newport News Medical Society.

What is migraine? We find it written of in our text books under various designations, such as hemicrania, sick headache, paroxysmal headache, blind-headache, bilious headache and megrim, neither of which suggest the least idea as to the nature of the disease, nor its symptomatology.

Migraine is much more than headache; much more than sick stomach. It is a constitutional neurosis, characterized by violent paroxysms of pain which is unilateral and confined to the course of the fifth nerve. This pain is seldom absent and may exist alone, but is commonly associated with other sensory disorders, nausea and vomiting, vaso-motor disturbances and mental depression. Migraine is to the sensory nervous system what epilepsy is to the motor, and the relationship between them is exceedingly close. It is characterized by periodical discharges from the sensory centres of the cortex, similar to the discharges which are emitted from the motor centres in epilepsy.

Migraine usually commences in the first half of life, and seldom begins after thirty. A majority of cases begin between five and twenty years of age. It is found more frequently in females than in males. The disease is strongly hereditary, and inheritance can be traced in a considerable majority of the cases. The inheritance is usually direct, that is, the progenitors have suffered from migraine; in other cases the inheritance is indirect—that is, the relations have suffered from other neuroses, such as neuralgia, and epilepsy. Gowers treated a brother for migraine and his sister for epilepsy. He, also, reports a case of migraine whose brother had migraine, her father severe neuralgia and her father's brother insanity. The gouty diathesis has a decided influence in the production of the disease, as a parent may have gout or rheumatism, and the children suffer from migraine. Migraine may supervene during an attack of rheumatism or gout, especially in neurasthenic patients. The appearance of gout in the latter decades of life frequently puts an end to the attacks of migraine. When the disease begins very early in life, no immediate cause can be found for it, but when it occurs later, we look for its causes in those influences which weaken and depress the nervous system and usually find them in the rheumatic or gouty diathesis, excessive brain work, anæmia, over-lactation, over-fatigue of all kinds, work in hot and crowded rooms, reflex irritations and digestive disorders. Various influences act as exciting cause and precipitate a paroxysm. Among these the most common are fatigue, excitement, digestive disturbances caused by errors in diet, visual impressions and overstrain of eyes, loud noises, and peculiar odors. In fact, an attack may be induced by any form of sensory impression.

The characteristic feature of the symptoms of migraine is their paroxysmal character, and the most constant and essential symptom is paroxysmal headache. The next in frequency are nausea and vomiting then some disturbance of vision, affection of speech or hearing, disturbed sensations in the limbs and vaso-motor derangement. Motor symptoms in the limbs are sometimes found, but are not very common.

The attack may or may not be preceded by prodromata, such as a feeling of heaviness about the head, somnolence and visual apparitions. Usually the onset is sudden and the symptoms appear in the following order: sensory symptoms, pain, nausea and vomiting, which usually ends the attack. Vaso-motor disturbances may be present throughout the attack, or may come on toward the close. Sensory disturbances may be absent—then pain is the first symptom to appear. When sensory symptoms usher in the attack, they generally begin quite suddenly. While feeling perfectly well, the patient suddenly becomes conscious of some disturbance of vision. A bright spot appears on one side of the field of vision, slowly enlarges and spreads, becomes darker in the center as it extends, and changes from round to angular form and zigzag shapes, producing the so-called fortification spectra. Instead of always presenting this picture, this spot is often varied and brilliant in color, with the brightness sometimes in the centre, sometimes at the periphery. In other cases a sudden dimness of sight may appear to one side, which increases until one half of each field is blind. The hemianopsia may be partial or complete. The visual phenomena always affects the field of vision of both eyes, although the patient imagines he sees them with one eye only. Double vision is rare.

*Read before the Seaboard Medical Society, session held at Norfolk, Va., Dec. 15-17, 1903.

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Visual disturbances occur in at least half of the cases, and may consist of partial loss of sight, or spectral appearances. Every variety of visual disturbance may be present in a single case. The appearance of the disk is perfectly normal. The spectral appearances are sometimes so striking as to be mistaken for hallucinations and illusions, and give rise to a fear for the sanity of the patient. Apparitions of insects, animals, mice, dogs, men and other objects appear, to the no little annoyance of both the patient and his friends.

Disturbances of function of other special senses, while not so common as those of vision, sometimes occur. There may be one sided deafness, noises in the ear, or derangement of taste. Sensory symptoms are felt in the limbs, face throat, tongue and adjacent parts. In the limbs the sensations are generally felt in the arms. Cutaneous sensations consist of tingling in the skin, pins and needles felt in the hands, fingers and wrists, which are succeeded by numbness which in some cases amounts to actual anæsthesia. The order of these may be reversed. There is the same combination of sensory irritation and sensory loss in all these various forms of disturbance. As has been said, these sensory disturbances may be wanting, when the first symptom to appear is pain. This may be either unilateral or bilateral, though in a great majority of cases it is confined to one side. It may be intensified by light, or excited by noises. The pain is penetrating, sharp, boring, expansive and cumulative in character. It begins as a small spot, gradually spreads until it involves the whole side of the head, and sometimes extends over the neck and the arm of the affected side. Both sides may be affected, though rarely. Nausea and vomiting are common symptoms, and if the stomach is full when the attack comes on, these usually give relief. Vaso-motor symptoms are generally present; the face is pale, the pulse slow and the extremities cold. Sometimes the face and ear on the affected side are burning red from capillary dilatation. The eyes may be retracted, conjunctiva injected, and the pupils contracted. The face has a drawn, pinched expression, and suffering is clearly shown. Motor symptoms, which are rare, are confined to transient weakness, spasms and cramps in the limbs, and transient aphasia.

Besides the visual and other hallucinations, the mental symptoms which sometimes occur, and which are usually slight and transient, are emotional depressions, restlessness, confusion of ideas, loss of memory, and brief stupor. There may be a giddiness which does not amount to vertigo, and is no more than a vague sense of imperfect equilibrium.

The duration of the attack is variable. There are few troubles more prostrating than migraine, and the patient may be scarcely able to raise the head from the pillow during the paroxysms. The duration between the attacks usually varies from two weeks to two months. In females they often occur about the menstrual periods.

No anatomical changes have been discovered in migraine. There are two theories in regard to the origin of the attack: that of Liveing, which holds that it is a nerve storm or some form of periodic discharge from certain sensory centres in the cortex, similar to the discharge from the motor centres in epilepsy. According to this view, it is the sensory equivalent to a true epileptic attack. Mollendorf, Du Bois Reymond, Latham and others regard it as a vaso-motor neurosis, and contend that the early symptoms are due to vaso-motor constrictor, and the later to vaso-motor dilator influences. The development of arterio-sclerosis in the arteries of the affected side seems to give strength to this position.

From other forms of headache migraine is distinguished by its sensory accompaniments, its paroxysmal character, severity, definite course and unilateral distribution of pain. The aphasia and sensory disturbances of the limbs, if they occur in a first attack, may cause a suspicion of acute brain disease. Their transient nature and history of preceding attacks will clear up the case. From minor epilepsy with special sense aura the diagnosis is more difficult. In epilepsy the visural aura is very brief, lasting only a few seconds; while in migraine the visural disturbance lasts from twenty to thirty minutes. The occurrence of a convulsion decides the question. The one disease may unquestionably pass into the other.

The diagnosis is sometimes clouded by the subjects of migraine being affected by other diseases, such as neurasthenia, Bright's disease and general paralysis of the insane..

As regards life, prognosis is good. As to ultimate recovery, not so good, but by judicious care and treatment the condition can be much ameliorated. There is a tendency to abatement in the later half of life, and it sometimes ceases in women at the menopause. It has been known to disappear with the advent of gout. Ultimate recovery depends greatly upon environment of the patient. If he leads a perfectly wholesome life, free from care and anxiety, indiscretions in diet, mental and physical over-fatigue, and spends much of his time

in out-door exercise, his disorder may be cured entirely.

The affection may be regarded, in a sense, as self limited, as it seldom lasts after the age of forty-five, after which it loses its paroxysmal character and sensory symptoms, and may be converted into neuralgia or constant occipital headache, which will be found less severe and more amenable to treatment. There are cases, however, which in spite of most favorable conditions and treatment, the trouble persists throughout the patient's entire life.

Treatment is necessarily divided into that of the paroxysm and that of the disease. As soon as the premonitory symptoms of an approaching attack appear, the patient should be put to bed in a darkened room and the stomach should be washed out with hot water, or, when this cannot be done, large quantities of hot water should be drunk. Follow this by a saline cathartic and a hot soap and water enema. Combine with these measures the administration of some of the following drugs, selecting those which may be clearly indicated by the condition of the sufferer: Antipyrine, phenacetine, acetanilid, bromides, hyoscyamine, ergot, caffeine or nitroglycerine. The various local measures usually employed for headache, such as sedative liniments, menthol, mustard plasters and hot applications will sometimes afford decided relief. Hot applications to the head and feet simultaneously will often be found to be a most certain and satisfactory remedy for headache. Hypodermics of morphine should not be given, except when pain recurs in such violent paroxysms as to prostrate the patient, producing great coldness of the extremities, rapid pulse, and other grave nervous disturbances; then it should be unhesitatingly administered. The hypodermic syringe should be used only by the physician, and by him with the greatest circumspection. Electricity is of doubtful value. Gowers says Faradism does harm. Of the great number of drugs recommended for the treatment of the paroxysm, antipyrine is undoubtedly the most important and will be found efficacious in the greatest number of cases. Not more than five or ten grains should be given at a dose, and its potency will be found to be enhanced by the addition of ten or fifteen grains of bi-carbonate of sodium. It is best given in solution at intervals of one or two hours, until three or four doses are taken. Phenacetine should be given in about the same dose as antipyrine. It is not so rapid in its action, but will be found to be satisfactory in a large number of cases. Acetanilid is very generally used in headaches, but is objectionable on account of the depressing influence on the heart. It is not so safe as either phenacetine or antipyrine. Next to the coal tar preparations, the bromides are the most generally used remedy, and are safe except in neurasthenic individuals. Hypodermics of 1.50 gr. hyoscyamine has been suggestion by Seguin. Salicylates are extensively used, but are not so efficacious and are liable to produce nausea. Ergot is a remedy of considerable value, and combined with bromides in cases where the face is flushed, will be found of decided service. Caffeine is among the most important and efficacious remedies, and has been pronounced by authority to be as complete a specific in migraine as quinine is in malaria. It should be given in doses of one or two grains every hour, beginning early in the attack. It is indicated in asthenic cases. It sometimes produces palpitation of the heart and an excited and tremulous condition of the patient. Nitroglycerine is the most valuable drug in those cases in which there is decided pallor and coldness of the extremities. It should be given early in the attack, and only one or two doses should be used. A careful study of the individual will reveal the line of treatment which should be pursued in the disease during the intervals between attacks. In all cases special attention should be given to the improvement of the general health, and all sources of reflex irritation should be carefully searched for and, if possible, should be removed. The correction of all ocular defects, no matter how slight, should be insisted upon. In all cases the eyes should be examined under the influence of a mydriatic, as nearly all cases of migraine are associated with refractive errors. This is fully understood by nearly all oculists, but the general practitioner, as a rule, does not appreciate the importance of doing it. The other organs should also be examined, especially the nose, which should be searched for obstruction and other evidence of disease.

The gastro-intestinal tract should be put in good condition and the diet, which must be simple, should be properly regulated. Late suppers, pastry, sweets, red meat, wines, beer, and spirits of all kinds should be shunned by all patients, especially those of rheumatic or gouty tendency. In anæmic and neurasthenic patients milk, beef tea and meat juice in addition to a full and wholesome diet should be given.

In these cases the rest treatment should be given, and will often be found to be of remarkable benefit.

Out of door life, exercise, gymnastics, baths and other hygienic measures will be ofund to be invaluable adjuvants which will

often postpone and lessen the violence of the paroxysms.

Of drugs, the most useful remedies during the intervals are tonics and nervines. Iron, arsenic, strychnine, quinine, hypophosphites, ergot, cannabis indica and nitroglycerine are the most important medicines, and should be used for a considerable length of time.

Of all the drugs employed in the treatment of the disease, nitroglycerine and cannabis indica are the most valuable and important. Where there is conspicuous pallor and the arterial tension is increased, nitroglycerine is undoubtedly the best drug to employ. The value of nitroglycerine is in direct proportion to the degree of arterial tension; if this be high, of course the drug is simply invaluable; if it be low, it is useless. Nitroglycerine should be given three times a day during the intervals of the attack, when it will render the attacks slightly less frequent and after a while stop them altogether. It is not well to continue it throughout the attack. At the onset of an attack, when there is decided pallor of the face and coldness of the extremities, a few doses should be given, but if the relief is not found it should be discontinued until the attack is over.

In the great majority of cases, cannabis indica is the most satisfactory remedy. It should be used in long continued courses to the point of toleration. It is not simply paliative, but curative, and in nearly all cases it will give permanent relief. To accomplish this we must impress upon the patient the necessity of taking the remedy without intermission for a long time. Gray taught that cannabis indica acts as well in migraine as the bromides do in epilepsy. It can be advantageously given in combination with iron, arsenic, ergotine, zinc and other nervines. A favorite formula of mine is a pill composed as follows:

Rx.	Zinci Phosphid,	Grs.	1.10
	Ferri Redacti,	"	1
	Ext. Nux Vomic,	"	1.4
	Ext. Cannabis Indic,	"	1.4

Mft. Pi. 1.

Sig. One pill three times daily.

I give one such pill three times daily for one month, then alternate for two weeks with some other nerve tonic, after which I resume the use of the above pill for another month, and so on.

Goitre.*

By Annie L. Alexander, M. D., Charlotte, N. C.

Mr. President and Gentlemen: I have chosen goitre as the subject of my paper because it has interested me the past few months more than any other disease, having had an experience with it more interesting than pleasant.

It is a much more frequent disease in this part of the country than is generally supposed. In less than three months I have seen nine cases of it. Only three of these consciously called my attention to the growth; only one wanted treatment for it. Out of fifty college girls examined for physical culture classes, five had thyroid enlargement. One of these nine had quite a large goitre, the size of her fist; as it gave her no trouble she thought it not worth while to have it treated.

Goitre is an hypertrophy of the thyroid gland. It may be of one or both lobes, or of the isthmus alone. The lobes of the thyroid are closely applied to the sides of the larynx and trachea, and extend backwards to the œsophagus. The recurrent laryngeal nerve is in the angle between the œsophagus and the trachea on a level with the isthmus. The gland is covered in front by the sterno-hyoid, the sterno-thyroid and the omo-hyoid muscles. The lateral surfaces lie in contact with the sheath of the common carotid artery. The lower end of each lobe lies on the fifth or sixth ring of the trachea, the upper end is on a level with the middle of the thyroid cartilage. In many cases there is a third lobe, extending from the isthmus up to the hyoid bone, to which it is attached by muscular or fibrous tissue. The gland is firmly fixed to the larynx and trachea so that it follows them in deglutition. It weighs from one to two ounces. It is relatively larger in infants than in adults; larger in females than in males. The anatomy of the gland is liable to great variations. It is rich in blood supply from four arteries; they form many anastamoses. The nerve supply is from the middle and inferior cervical sympathetic ganglia. The colloid substance is the secretion of the epithelial cells which line the alveoli. The central part of the alveoli acts as a reservoir where the secretion is stored. The secretion escapes by the lymphatics. The activity of the secretion varies. The influence of this recretion on the body is very wonderful. Myxedema results from failure of the normal supply, and an oversupply produces symptoms directly contrasting to myxedema. Myxedema is a very interesting condition and quite amenable to treatment since organotherapy is so well known.

Goitre is very prevalent in parts of the United States and Canada. It is endemic in parts of Italy and in the mountains of Switzerland.

There are three varieties of simple goitre;

*Read before the Mecklenburg County Medical Society, Dec. 7th, 1903.

parenchymatous, in which all the structures of the gland are enlarged and increased; vascular, in which the enlargement is chiefly due to dilatation of the blood vessels; cystic, in which the enlarged gland is made up of large cysts.

The enlargement may be uniform, or affect only one part of the gland. When small, simple goitre causes no inconvenience. Its growth may compress the trachea and œsophagus and interfere with respiration and deglutition. It may extend behind the sternum and compress the veins. It may extend upward and outward and compress the carotids and pigular veins. Aside from pressure symptoms, simple goitre gives no trouble, unless "it goes to the brain;" that is, the knowledge of its existence causes great mental anxiety and consequent derangement of the secretory functions.

The cause of goitre is not known.

The medicinal treatment of goitre is very unsatisfactory. The most common treatment is iodine in some form, locally and internally. The compound tincture of iodine, 10 to 30 drops three times a day, has proved beneficial in some cases. Iodine is badly borne by some stomachs; if given in milk it produces no unpleasant symptoms, and the taste is completely disguised. This often fails.

Thyroid extract seems to offer more hope of success than any other constitutional remedy, but it more often fails than cures. It is only in the parenchymatous variety that it does any good. It acts by supplying the needed material to the system, thereby causing disuse and consequent atrophy of the enlarged gland. It is advisable to begin with ten minims of liquor thyroidei each night. In the course of a week, if this does not cause the pulse to go over 100 per minute, two doses a day may be given; if this does not accelerate the pulse it may be given thrice daily. The treatment should be given three or four weeks to give it a fair trial. If the tumor is found to be decreasing, continue the treatment. The thyroid tablets, 3 to 5 grains, may be used in the same way.

In large parenchymatous growths this treatment has been successful, removing pressure symptoms and the necessity for operation. Experiment has shown that the use of thyroids in healthy animals has caused decrease in the size of the normal gland.

The injection treatment has been used with good results in some cases. A saturated solution of iodoform in ether, beginning with 5 drops, increasing to 20 drops, injected into the interior of the tumor once a week, has been used successfully by some. This treatment is quite painful; severe pain in side of face, ear and head. This subsides in a few moments. Pepper and Da Costa used ergotin by injection with good results. There is little danger of supuration if asepsis is carried out.

Electrolysis is curative in some cases; more often it fails. It is most useful in small goitres in the early stage. It should be used with caution, as it may prove harmful.

In 1891 Dr. Hunter McGuire described the cataphoric treatment. A cup shaped electrode is used in which is placed some absorbent cotton first dipped in warm water and squeezed dry, on this a few drops of tincture of iodine are poured. This is placed over the most prominent part of the goitre. The negative pole is placed on the back of the neck. Six or eight milliamperes is passed daily for 10 minutes. A current much stronger blisters the surface, which should be avoided.

Dr. Osler says: "The medicinal treatment is very unsatisfactory. The affection usually comes under the care of a surgeon."

Exophthalmic goitre, known, also, as Graves' disease and Basedow's disease, is a disease of great interest and importance. The disease was described in 1820 by an Italian writer. In 1843 Graves published his views of it; in 1840 Basedow, in Germany, wrote of it.

Etiology: Exophthalmic goitre usually comes between 20 and 40 years of age. It occurs five or six times more frequently in women than in men. A neuropathic heredity seems to play a part in the development of it. Pubescence in girls seems to predispose to it. Mental shock, prolonged grief and pregnancy seem to excite it. It is sometimes associated with chorea, epilepsy and hysteria. It is sometimes found affecting several members of the same family.

Olmsted, of Ontario, says: "Although the thyroid gland is not the cause of Graves' disease, it certainly has a very great influence on its course."

It is a complete contrast to myxedema, which is due to insufficient thyroid secretion.

Graves considered it a disease of the heart. Some regard it as a pure neurosis. Its sudden onset after profound emotion, in some cases, favor this theory. Other investigators attribute it to mechanical pressure of the cervical vessels and nerves.

At present there are two theories as to the cause of the disease. One points to the medulla and sympathetic nervous system; the other to the thyroid gland. The cardiac, vaso motor and thermic disturbances seem to point to the medulla. The central and sympathetic nervous systems have been examined, post mortem, in num-

bers of cases and have been found normal in some, and in others various lesions have been found which might have been secondary. Supporting the views of those who hold that the thyroid is the cause of the disease are: the enlargement of the thyroid; cures and myxedema which have resulted from removal of the gland, or destructive changes in it. Symptoms of exophthalmic goitre have resulted from over doses of thyroid in normal individuals, as in treatment for simple goitre. If it is due to excessive thyroid secretion, the question of the real cause of the disease still confronts us, the cause of the disturbance of the thyroid function.

Morbid anatomy of the gland: The thyroid may show changes from simple congestion to the most destructive changes. The vessels are thickened and dilated; the veins on the surface are large, the tumor is very vascular. On section it exudes less colloid substance than normal. The general appearance has been compared to that of the mammary gland during lactation. There is active connective tissue proliferation. The number of alveoli is increased not only by total increase of gland, but there are more in an equal area than in a normal gland. The walls of the alveoli covered with the secreting epithelium form folds and project into the alveoli, encroaching upon the storage space of the colloid substance. By these folds the secreting part of the gland is increased. The epithelium is changed from flat to columnar. Instead of the alveoli being filled with colloid substance, they are partially empty, showing a rapid removal of secretion; the secretion is more watery, In an old standing case where the symptoms are subsiding and the patient on the way to recovery, the alveoli diminish in number and a condition of fibroris takes place. If the fibroris advances symptoms of myxedema develop.

Symptoms: There are five cardinal symptoms, goitre, exophthalmos, tachycardia, fine tremors, elevation of temperature. To these may be added a disturbance of function of almost every organ in the body.

The onset may be sudden, but as a rule it is more gradual, and may be chronic from the beginning. All of these cardinal symptoms may be present—any one or several of them may be absent. Of the five, tachycardia may be the only one present. It is the only one of the five taken alone that is essential. In the beginning the goitre may not be noticeable, or may not appear, or appear at intervals. The cardiac disturbance may be the first symptom to appear. The pulse becomes rapid, 120 to the minute; 150 to 200 has been observed. The rythm as a rule is regular; but it may be greatly disturbed and the heart's action tumultuous. Murmurs are sometimes heard. The victim may be conscious of pulsation in almost every artery. In Paesler's statistics of 58 cases, 57 showed tachycardia. The exophthalmos may appear before the goitrous enlargement, or simultaneous with it, or may not develop at all. Both eyes are usually affected. Where there is no occular disturbance the gravity of the disease may be overlooked and the disease be mistaken for simple goitre. The tachycardia tremor and rise of temperature should point to Graves' disease. The occular protrusion and inability to close the lids cause inflammatory conditions. There are motor disturbances of the eyes.

The entire muscular system is affected. A fine tremor is a very constant symptom. It may affect the hands only or the whole body. A slight elevation of temperature is generally present. Often, before any of the cardinal symptoms develop, the patient may present mental excitation, impulsiveness, restless activity, emotions easily excited, irritable, fault finding, ungrateful, and generally hard to live with. In some instances this excited mentation goes into insanity. Undue mental stimulation is characteristic of this disease, as mental apathy is characteristic of myxedema.

In some cases the skin is marked by increased pigment, sometimes resembling the bronze-like appearance in Addlson's disease.

Anæmia and loss of flesh may develop; vomiting and diarrhœa may occur.

George B. Murray, of London says: "The most rational explanation of the complex symptoms of this disease appears to be that they are due to an excessive formation and absorption of the thyroid secretion, which may or may not be altered in composition, and to the constant excess in the blood and its action upon the metabolism of the tissues generally, but more especially of the nerve centers in the medulla."

Treatment: Medicinal treatment is not very satisfactory. Rest and quiet are of the greatest importance. Some cases rapidly recover under Weir Mitchell's rest cure. Few patients can afford this plan of treatment. Rest in bed for six months with large doses of belladonna to check the hypersecretion have been used successfully. If the heart symptoms have been severe, convalaria has been of the most service. Strychnia, digitalis, strophanthus act favorably on the heart in some cases. Where there is much nervousness the bromides have done good. Inunctions of the red iodide of mercury over the goitre have been used. Tablets of dried thymus have been used with success in some cases. Thyroid ex-

tracts are positively contraindicated in exophthalmic goitre—all the symptoms are increased, there being already too much of the thyroid secretion in the system.

Surgery offers the most certain hope of cure. Thyroidectomy is a very serious operation, and is frequently attended with grave results. The recovery in many cases after the operation is evidence that the disease is due to hypersecretion.

Madden has reported recently two deaths following the operation from tetany and from absorption of the colloid substance by the wounded tissues. The most common symptoms after operation are great restlessness, rapid pulse, fever and rapid respiration. These symptoms have not been observed after total thyroidectomy, showing that they are due to absorption of thyroid secretion from wounded gland. This absorption is a real danger in this operation, and should be guarded against by very careful handling of the gland so that the colloid substance will not be squeezed out into the lymphatics and into the blood current. Free drainage should be provided for any secretion from the stump.

There is little doubt that the removal of a part of the gland is the rational treatment of this disease, but on account of the great risks the operation should be undertaken only by a surgeon who has had special training in this particular operation.

Prof. Kocher, of Bern, is the pioneer in this branch of surgery. He has treated about 2,500 cases of goitre. Thyroidectomy for Graves' disease is becoming more popular every year. Out of 59 operations, as reported by Dr. Alfred Kocher, 45 were cured, 8 very much improved, 2 slightly improved, 4 died.

The operation is frequently done in our large hospitals.

Prof. Kocher lays down the following indications for operation:

1. As soon as the goitre causes dyspnœa or inflammatory changes occur, or there is the slightest suspicion of malignant degeneration. 2. All enlarged thyroids classed as deep, having a tendency to grow toward the aperture of the thorax, should be considered dangerous. 3. All goitres that have reached considerable development from the formation of single large colloid nodes, can only through operation be actually removed. 4. When with moderate goitre, symptoms like Basedow's disease appear, accompanied with an increased development of the goitre, an operation is the best means of warding off that dread disease.

Kocher's method of operation is as follows: "The patient having been prepared is placed on the table, the shoulders and throat elevated, head lowered, thus bringing the field of operation well into view. The head is covered with a rubber cap which keeps the hair out of the way. A half sheet, hollowed out for the neck, is placed over the patient and held in position with tapes. The patient's face is covered to prevent contaminations from the patient's face reaching the field of operation. A 1 per cent. solution of cocaine is injected along the proposed line of incision into the skin and subcellular tissue. A 10 c. c. syringe with a fine needle is used. The needle perforates the skin near the median line and passes through the subcellular tissue till it reaches the outer end of the proposed incision when the cocaine solution is gradually injected as the needle is withdrawn. The opposite side is treated in the same way. About 20 c. c. of a 10 per cent. solution are used, and extremely seldom is it necessary to inject any more. A bowed incision is made with the convexity downward across the tumor from one sterno-cleidomastoid muscle to the other. The incision extends through all the tissues down to the muscles of the neck. All bleeding points caught, the large vessels being divided between forceps, this flap is reflected upward together with the fascia covering the muscles. The muscles are now separated in the median line along the whole length of their course, as well as the outer fibrous capsule of the goitre. If the goitre be very large and sufficient room cannot be obtained by retracting the separated muscles, their upper attachments are divided a little on either side of the line with scissors. This will give room enough, and after the tumor is removed they may be stitched back in place. The lateral lobe is now dislocated from its bed by passing the finger in between it and the capsule. Any veins running between the capsule and goitre are divided between forceps and carefully ligated. By shoving back the capsule from the upper and outer horn of the lobe the superior thyroid artery may be isolated, ligated and divided. The inferior thyroid is now carefully isolated from the recurrent laryngeal nerve and ligated. It is important at this point to have the patient say "ah," so as to insure the safety of the nerve. The thyroidei ima veins are clamped and divided, the isthmus separated from the trachea with the sound, crushed with the clamp and ligated with a strong ligature. The clamp will crush a large isthmus to almost nothing, so that there is no danger of hemorrhage from this source. There only remains now a few attachments of the gland at the side of the trachea, and it is well to leave some grandular tissue here to protect the recurrent laryngeal

nerve. All bleeding points having been carefully caught and ligated with fine silk, the muscles are brought together with interrupted sutures in the median line and the skin wound closed with subcuticular sutures."

Death has resulted from thyroidectomy from thyroid secretions being absorbed by the cut surfaces. Olmsted thinks it wise to use drainage in large exophthalmic goitre. Dr. Cushing, of the Johns Hopkins Hospital, uses drainage.

The important points about the operation are asepsis, preservation of the recurrent laryngeal nerve, leaving a part of the gland to guard against myxeodema, and prevention of absorption of thyroid secretion.

General anæsthesia is not used usually in this operation. Operators say their patients complain of little or no pain. These patients are Stoics. There is pain, and chloroform sometimes has to be given to complete the operation. There is less danger of wounding the recurrent laryngeal nerve where the patient is able to phonate during the operation. In the hands of a skilled operator this danger is not great. Even when the nerve is not cut, the voice is sometimes impaired and may take months to fully recover.

The resulting scar is slight, and in a year or two is scarcely noticeable.

Pneumonia and Its Most Important Sequel.

By T. R. Millard, M. D., San Diego, California.

It is true that our store of exact knowledge has much increased during the last fifty years, and the result is that in many directions we can treat disease conditions more successfully than we ever could before. It is also generally believed that our exact knowledge of pneumonia has also increased, but somewhere there has been a terrible blunder. Either our supposed facts are fallacies, or, in deducing treatment from them, doctors have gone wrong, for the death role from pneumonia has increased, and is increasing, until it is the cause of a greater number of deaths than any other disease with which we have to do.

So great is the dread of it among the laity, that if it is diagnosed in one who is eminent for wealth, work or worth, they consider him to be in more imminent danger than if he had been sentenced to death by judge and jury in a court of justice.

We can accept as correct the death rate compiled from the records of institutions in which an autopsy is the rule. But the total number from the reports of health offices is too small. In the aged, pneumonia may run its course without pain or cough, and death be credited to heart failure or old age. In the habitual inebriate it may run its course to a fatal ending without arousing any suspicion of its presence. All these people have a chronic cough, and a little increase causes no apprehension. When the subject feels increased oppression in his chest he ingests more alcohol, and this goes on until the capilliary vessels are widely dilated and the heart gets all the relief this dilatation can give. At the same time the brain is so anæsthetized that it gives no heed to the calls sent through the pneumogastric nerve for more air and better treated blood. Under these conditions consolidation rapidly takes place over a wide area of the lung, and the serum thus abstracted throws its quota of fibrin into the general blood stream, which is already too rich in that material, and the right heart unable to propel the blood through the restricted area is over-distended, and if he tries to walk, or to make any exertion, he may fall as from apoplexy and expire in a few minutes or a few hours without regaining consciousness, or more often he is helped to bed apparently a little drunker than usual, and left to sleep off his debauch, and when he is next seen he is dead. If there is no autopsy all these deaths are credited to apoplexy or to chronic alcoholism, while they should go to swell the death rate of pneumonia.

Estimates vary very widely. Thus one gives the rate in the German empire as 14 per cent. Another as 24 per cent. For the British Islands, one estimates it at 12 per cent., another at between 18 and 19 per cent. By those best qualified to judge, the death rate is placed at 25 per cent. of all who are attacked.

About four years ago a doctor wrote: "In reviewing my years work treating pneumoniacs, I feel to congratulate myself on at least securing a satisfactory treatment for these patients." His cases were equally divided between private and hospital patients, and his satisfaction seemed to be based on the fact that the death rate was the same in both sets of cases, and "was 28 per cent., which is probably about the usual rate."

Recently a member of the American Medical Association wrote that if it was true that the death rate was 25 per cent. it it was a disgrace to our medical colleges, and says: "It does not appear to me as reasonable that the Sangrado method of puking, purging, bleeding, and blistering, which was the practice of our forebears in a disease when the tendency to death was heart failure, did not turn the scale against the patient in a great many instances. I must conclude that the rational symptom-

atic treatment of the present day will give better results in spite of what figures seem to teach. In other words, there must be something wrong with statistics which would convey a lesson so irrational."

The scheme of treatment which gave a rate of 28 per cent. was to "avoid cathartics which weaken the patient and do no good; to give 1 or 2 grains of calomel and a glycerine enema to move the bowels when needed, alcohol to adequately stimulate the heart, morphine to get relief from pain, and means to practically promote a continuous bleeding of the patient into his own arteries." The latter scheme, which the doctor says should give a rate of less than 25 per cent. is to give 4 or 5 grains of calomel, followed by 1 or 2 Seidlitz powders, then one or two grains each day and a Siedlitz powder every two or three days if the bowels do not move. From the first 1.20 to 1.12 grains of strychnine hypodermically every 4 to 6 hours, and one or two pints of good whiskey or brandy every 24 hours to properly stimulate the heart, and $\frac{1}{4}$ grain of morphine with 1.100 grain of atrophine hypodermically every 3 or 4 hours to give relief from pain; or five to ten grains of dover powder for the same purpose. Locally, flannel with turpentine, and, if the pain is persistent, fly blisters 1x1 or 1x2 inches, repeated as needed. Both say milk is the ideal food, and that 6 to 8 ozs. are needed every 3 or 4 hours. He does not tell us what the death rate under this scheme has been, but that "it should be much less than 25 per cent."

Some years ago a paper was printed purporting to contain facts and figures taken from the records of the Massachusetts General Hospital during the first twenty years of its existence. It was the custom to bleed every pneumoniac as soon as the diagnosis was established, regardless of whether he had been bled before his admission or not. A fairly large proportion was bled twice, and a smaller proportion were bled three times. It may seem strange to those who believe the blood is life, but the death rate did not increase in proportion to the number of bleedings. Externally blisters and poultices, and internally calomel in 20 gr. doses. Saline cathartics, Dr. Dover's powder, spirits of minderevas, with copious drinks of hot herbal infusions. With this treatment the death rate for that score of years averaged 8 per cent. In other words, under treatment that has been condemned as irrational and antiquated, one patient in $12\frac{1}{2}$ went down defeated. But a twentieth century doctor congratulates himself on a treatment under which one patient in 3.47 goes to defeat.

It has been said that pneumonia is a self-limited disease which cannot be aborted nor its duration shortened by treatment. This is a fallacy, for there are several ways pneumonia can be aborted. If the patient has passed the years of adolescence, and is not past middle age, and has no constitutional vice, and treatment is begun as soon as a diagnosis is possible, the abstraction of 30 to 36 ozs of blood and a full dose of calomel will abort half of these cases. A better way is to put him in bed under the care of a trusty nurse who will religiously prevent him from being uncovered and give him 25 to 30 grains of Dr. Dover's powder, and when he is through his sweating, say in 36 hours, the crisis will have passed in more than three-fourths of the cases. If either of these plans fail, it does not add to the patient's danger. Tartar emetic will often abort a pneumonia, but if it fails to do so it adds materially to his danger. The chill is nature's notification that the pneumococcus toxin is elaborated, and then crisis is a notification that antitoxin is elaborated. It was at one time thought that death resulted from the exudate compressing the capilliaries, shutting out both air and blood until life could no longer be sustained. But that the toxemia is the more important factor is proven by the fact that one patient may die when only a part of one lung is involved, and another may recover when only a part of one lung is not involved. If the patient has only the pneumococcus toxin to contend with, he will usually survive both the pneumonia and bad treatment also. Unfortunately other microbes may add their toxins, and then his condition becomes grave indeed.

A long list of drugs has been proposed as remedies against this toxemia, but none of them have won into extensive use. What the fate will be of the latest comers, Thiocol and Creosote Carbonate, is yet to be told. While testing them, it would be well to compare results with the result from the use of calomel as it was used a century ago. Dr. Gardner said he gave the pneumonia patient 20 grains of calomel "to purge him of noxious humors." If it will do that he will be nearly as well off as if you had given him an antitoxic. It is true that the present day plan of giving four or five grs. in fractional doses will physic him and carry out of the intestinal tract about half of its contents, and what remains is very far from being aseptic. These small doses stimulate both excreting and secreting organs almost equally, and the result is that although the contents of the intestinal tract are less highly septic, the increased activity of the absorbents prevents any great inroad on the general stock of toxins in the circulation. On the other hand, 20 grains of

calomel at a single dose will not physic a patient at all, but must be followed by a saline cathartic. A remedy may be either a stimulent or an irritant. The action is one in kind, and only differs in degree. The 20 grain dose is irritant, and it is a wise provision of nature that as the intensity of the irritation increases, the activity of the organs drawing matter into the intestinal tract increases, and the activity of the organs whose office it is to take matter out of the intestinal tract is inhibited. Thus the bowels are rendered as nearly aseptic and as nearly empty as it is possible to make them, and absorption being for a time inhibited nature has a chance to elaborate her antitoxin. This was what Dr. Gardner meant by purging the patient of noxious humors.

Venesection, as practiced in the Massachuseets General Hospital, can be highly commended. By it the cardiac muscle is kept from becoming exhausted by overwork and the right ventricle from being paralyzed by over-distension. It is believed by those familiar with venesection that the blood which is abstracted contains a larger proportion of toxins than does the blood which is retained. The patient is benefited by having the total volume of blood reduced to an amount that the heart can easily handle, and also by having its relative toxicity reduced and thereby a larger amount passes through the lung in a given time and it is better areated. A twentieth century scheme of treatment says, "blisters do more harm than good and should be forbidden. Small fly blisters and dry cups are advantageous for relief of pain." This doctor must be a lineal descendant of the soft-hearted soul who could not compel his dog to go through life with a tail six inches longer than fashion dictated, nor could he be so cruel as to shorten it at one full stroke, so, to save the dog pain, he cut off an inch at a time until it was of proper length. A blister 1x2 inches, neglected as they almost certainly will be, can cause more pain than a blister 4x6 inches will cause if it is properly attended to. I am aware of the objections to early blistering. They should not be applied until after the circulation has been well controlled by a proper venesection. As soon as that is done the surface should be well scrubbed with hot vinegar, wiped dry and a generous fly blister applied, and this covered with several thicknesses of heated flannel and all held in place with a *well fitted* bandage having shoulder straps sewed on behind and fastened in front with safety pins. In four hours the blister can be removed and a hot poultice of flax seed meal applied. Under this in four hours large blebs will form with so little pain as not to waken the patient from natural sleep. These should be opened and half fingernail sized bits cut from the lower border so they will not refill. A fresh hot poultice should be applied every four hours, and if the bandage has been well fitted it is seldom necessary to change his position when the poultice is changed. Making the poultice is important. The meal should be mixed with cold water to a consistency less than the finished product is to be, and boiled for ten minutes with constant or frequent stirring, and if it is likely to become too thick should be thinned with boiling water. When finished it should just hold to the cloth without dripping. Made in this way there is no need to oil it to prevent sticking. The bleeding materially moderates the pleuritic pain, and the blister and poultices so nearly subdue it that opiates are not needed. Not only do poultices help the pain, but they powerfully stimulate the heart, and by heat which is absolutely harmless, which cannot be said for any drug. Besides they promote pulmonary secretion, which is one avenue by which nature gets the pneumococcus out of the lung, and by this secretion the lung is directly depleted. Cough is nature's agency by which they are got out of the body, and if the secretion is free there is no more cough than is needed to secure that result. One objection to the poultice is its weight, and yet there are none but words of praise for Antiphlogistine which seems to have no weight when applied over an inflamed lung, but when it is applied over an inflamed mammary gland, its weight is extolled as a great curative property. Sure great and greatly to be praised is the safience of the trademark doctor. Forty-five years ago we made a mass of moulder's clay or keolin water and glycerine, and at a cost of 3 to 5 cents per pound got all the curative property that Antiphlogistine costing 50 cents a pound has. Every step in this scheme for relieving the stitch pain keeps in view the protection of the heart and the promotion of the pulmonary secretion. It is difficult to understand by what course of reasoning one can reach the conclusion that one-fourth grain of morphine and 1.100 grain of atropine hypodermically every four hours is a *rational* treatment for the pleuritic pain. It is true that it will relieve it, but at the same time it checks the pulmonary secretion and so shuts up the avenue through which nature depletes the inflamed lung and dams back both coccus and toxin into the system. If there is over-distention of the heart it is made worse, and if there is none it is invited, and the invitation is seldom declined. Although morphine stimulates the heart, it so be-

numbs the brain and pneumogastric nerve that is is doubtful whether any more blood is sent through the lungs after than was sent through before. In three or four hours the anodyne effect is gone, and nature makes an effort to restore the pulmonary secretion by the mechanical invitation of the cough, which brings back the pain, and this calls for more morphine, and thus the vicious circle is repeated. In some cases 1.20 or 1.16 grain of morphine does mitigate the cough, and so stimulates the heart that there is no decrease in secretion. But neither in large nor in small doses does morphine ever increase it. On the other hand two or three grains of Dr. Dover's powder stimulates the heart just as well, and diminishes the hyperæsthesia of the pulmonary nerve ends and sooths the excited lower nerve centers of the brain and increases pulmonary secretion. In practically all cases this powder can be of benefit during some part of the treatment. If morphine to relieve pain is irrational, the simultaneous use of strychnia and alcohol is doubly irrational. Strychnine stimulates the heart through its nerves and is a tonic to the heart muscle, and so tends to prevent over-distention. It is also a tonic to the muscular coats of the capilliary vessels, tending to keep them well contracted. On the other hand, alcohol relaxes the heart muscle and favors over-distention. It also relaxes the muscular coats of the capilliary vessels allowing them to dilate. Thus the effects of the two drugs are directly antagonistic. If laboratory investigations have proved anything, they have proved that alcohol does not stimulate the heart. What has seemed like stimulation resulted from the dilation of the capilliaries, whereby they contain more blood and it passes through them more slowly so that a smaller quantity reaches the heart in a given time, and of course the heart can handle the smaller easier than the larger quantity. But this is not stimulation. Besides, because of the muscular relaxation of the heart and vessel walls there is no increase in the amount of blood sent through the lungs by the apparent relief to the heart. This dilatation of the capilliaries also causes the fall of temperature after large amounts of alcohol are ingested. Almost coincidently with the demonstration of the way alcohol acted on heart and capilliary, laboratory investigation showed that if a subject was given a well balanced ration which maintained the body at a constant weight, a part of the vegetable carbohydrates could be withheld and an equivalent amount of alcohol substituted and the body weight still be maintained. From this it was inferred that alcohol could be classed as a food, and that it played the same role in the body as other carbohydrates. This inference was not warranted, because it had long been known that if one exposed to arctic cold ingested alcohol he perished sooner than if he had ingested nothing at all. Then physiologic chemists taught us that no such substance could be assimilated as food without its having been first converted into proteid, and alcohol can not be so converted. The use of alcohol is now recommended by those who wish to be scientific and consistent, "for its food value because it retards waste." Waste is what cannot be profitably used, and since alcohol maintains the body weight for a short time only we might claim that instead of retarding waste it only retarded the removal of waste. The weight would be the same in either case. But it is probable that alcohol does actually retard waste for a time, and later retards the removal of waste. As evidence of the latter we may cite the universal fatty degeneration of all of the soft tissues. We do not know how the countless products that go to form animal tissues are made from protoplasm, and until we do know we cannot know how alcohol retards tissue change. But a theory can be framed that does not conflict with any known facts. This theory is based on two propositions which cannot be proved, but which are generally accepted as true. The first is that the universe is motion. The second that the basis of every substance that we know as matter is the atom. The basic motion of the atom is gravitation, and from this motion it can never be released. But countless other motions may be given to it, and with each motion it acquires powers and properties that it does not have with any other motion. An aggregation of atoms having an identical motion forms an element, and when the motions of two elements are perfectly harmonized there is a chemical union, and the motion of the compound substance is less than the sum of their motions before their motions were harmonized, and the surplus becomes evident as heat.

As an illustration of this universal law, we take oxygen and hydrogen. If a certain motion is given to their particles, we have water, a substance which has not a single property common to its constituent gasses except gravity, which remains the same. If to the particles of water another motion is given, we have ice. If another, steam. If another, invisible vapor of water. The particles are the same, but their properties are completely changed with each changed motion. So we can suppose that the dozen or more active principles elaborated by the liver cell are all one protoplasm having its own proper motion. Animal

life then is the sum of a practically infinite number of two sets of electro-chemical motions. One of these sets is constructive, the other destructive. Either may temporarily be in the ascendant, but both must be in constant action or life ceases. Some one (was it Malpighi?) said: "Nature works in casts." Systemic hunger is the sum of a multitude of little hungers. Systemic thirst the sum of a multitude of little thirsts. So animal heat is the sum of a multitude of little heats. The molecule ingested as food is taken up by one of the sets of constructive motions, and through countless changes of contact and environment is carried forward until it finds a resting place in the body of a functioning cell. At each change of contact it has undergone an electro-chemical change and made its little contribution to the sum of animal heat. In the act of functioning it makes another contribution, but in time its motion ceases to harmonize with the basic motion of that function, and the destructive motions tear the cell apart, and it makes a larger contribution and is started on its way out of the body. From that moment it is waste, so far as that function is concerned. If on its way its motion can be made to harmonize with any other set of constructive motions, it is again taken in charge and through a similar course is again built into another cell having a different functional motion. In conditions of perfect health the same molecule may successively occupy many different cells. But under conditions of disease it quickly loses this susceptibility and falls under the control of the lowest or fat-forming motions, and so makes its last and greatest contribution. It is this loss of susceptibility that causes rapid loss of body weight. Alcohol fat is less easily utilized than other fats, as is shown by the general fatty degeneration in all tissues in the chronic alcoholic. It seems likely that the theory of Prof. Wilson that the protoplasm within the cell has a permanent foam-like form, and if so we may suppose that each ultra microscopic compartment is a little laboratory, with its own catalyzer or enzymidyalizing its elaborated product through the laboratory walls. If this is so, each cell contains the elements for its own destruction. Each liver cell turns out a dozen or more distinct products necessary in sustaining life, and may be compared to a powder factory where each process was conducted in a separate room in the same building. Then the wrecking of one room involves the whole factory. Judging from the effect alcohol has when applied to live tissues, we may suppose that acting on the colloid of the cytoplasm it retards the breaking of the laboratory walls. This seems more likely than to suppose that it retards waste by acting on the basic motion of the function. No treatment can be more irrational than the attempt to relieve an overdistended right heart by the simultaneous use of strychnine and alcohol. Strychnine stimulates the heart through the nerves, and is a tonic to the muscle wall of the capilliary vessels, while alcohol anæsthetizes the nerves and relaxes the whole mucutor apparatus. If one drug is indicated, the other is contraindicated. This may be qualified somewhat, because in some cases a small amount of alcohol, properly diluted and administered solely for its irritant action on the stomach lining, does sometimes improve both appetite and digestion, and when it does so its use in that amount and for that purpose is permissible.

Digitalis is always included in a list of heart stimulants, but it is a tonic rather than a stimulant, and as it sustains the action of strychnine they may well be given at the same time. Digitalis contracts the capilliary vessels and alcohol dilates them. Hence the doctor who gives alcohol and digitalis, or alcohol and strychnine, simultaneously, or alternately, acts just as wisely as would one who fed a fire with one hand and smothered it with the other. For more than fifteen years digitalis has been known to be one of the best, if not the very best, remedy with which to combat alcoholic delirium tremens, and it would seem that knowing this every doctor would question the propriety of administering both drugs at the same time, regardless of how high the authority might be that would recommend such use. The claim that the long-continued administration of strychnine injuriously affects the nervo-muscular system of the heart is entirely fallacious, and is born of the pernicious practice of administering alcohol simultaneously or alternately. The claim that digitalis impairs the appetite, and sometimes causes nausea and vomiting, has some foundation, but if it is given after food, and each dose diluted with one or two teaspoonfuls of aromatic elixir, moderate doses, say 8 to 15 minims, are more likely than not to increase the appetite. It is true that some patients will survive the opium and alcohol treatment, but too often it is only to go down a few months later with consumption, or to meet a premature death from heart failure.

Those that devote their time to the treatment of tuberculous patients, lay great stress on the value of treatment during the pretuberculous stage, and the advise is good so far as it goes, but not enough attention is given to the heart. In many, if not in all, cases following pneumonia, early and judicious treatment of the heart would prevent

this most important and probably most common sequel. The heart is an involuntary muscle, but is subject to the same laws as voluntary muscles are. If it is long overdistended it loses power, and does less than its usual amount of work, and a muscle that does less work than it was developed to do decreases in size as well as power. In order that complete repair may be made, the diseased lung requires more than the normal amount of blood, and the heart cannot furnish even the normal amount without aid—strychnine to make available the latent nerve force, and digitalis to give tone to the cardiac muscle.

Although the pneumonic exudate is not wholly nor mainly interstitial, as was once supposed, there must be a profound tissue change before there can by any exudate. It is a wise provision of nature that for a time detains the exudate within the ultimate air spaces, where it acts as a tampon until partial repair can be made. If it was not so, the blood would soon lose so much serum that capilliary embolism and thrombosis would be universal. But in many cases, after the patient has resumed his usual mode of life, careful examination will discover areas that are not normally distended by ordinary inspiration. If on forced inspiration they continue to be filled for some time, all will probably be well. But if only for a short time, the lung nutrition will suffer to such an extent that tubercular infection is certain, and then a cure is impossible. The process may be arrested and many years of apparent health follow, but if he passes the limit of three score and ten years he will die suddenly, or the tubercular process will be lighted up again and prove fatal.

For the majority of these patients the amount of strychnine required will be about one-fifth grain daily, but some will do better one-eighth or one-tenth grain. The amount of digitalis required varies more widely, from 3 or 4 minims of the tincture three times a day up to 20 minims at a dose. If the urinary ontput increases as the digitalis is increased, cumulative action is not likely, but if large doses are given, the patient should be kept under close surveilance, and every three or four days given two parts of powdered squill and one part of calomel in such an amount that three or four doses at four hour intervals will cause two or three stools. This prevents cumulative action until the dose can be safely reduced. More than thirty-five years' use of it has convinced me that the inhalation and forcible exhalation of medicated air is of more value than anything else. The air may be medicated with creosote, thymol, menthol, formalin, eucalyptal, oil of wintergreen, oil of pine-needles, &c., variously combined. The medication is of little consequence of itself, but by changing it from time to time the patient can be induced to use it with greater regularity and persistence. The apparatus which I long used was efficient but cumbersome, and has been discarded for the in and exhaler devised by Dr. Dennison, of Denver, Colorado, which is not expensive, and is efficient and convenient to use. It is compact, can be carried in the pocket, and used for ten minutes in each waking hour of the day, and interfere but little with his usual avocation. Not five per cent. of those who could be benefitted by the air compressors, sprayers, and nebulizers in the specialists' office are financially able to profit by his appliances and his skill. But if every one in whom respiratory intake was deficient would, as soon as it could be demonstrated, faithfully use the in and exhaler, supplimented by such treatment as every regular doctor should be able to give, not five per cent. of the number who now find their way to the specialist's office would ever need his help. But this consummation so devoutly to be wished for will never be realized, because so many times it will not be discovered, and so many times when discovered it will be neglected, until all that the specialist can do will be to delay for a longer or shorter (too often shorter) time the day of doom.

Much stress is laid on the necessity of properly nourishing the patient, but much of this zeal is not according to knowledge. Some of us can remember when whole cows' milk was religiously prohibited. Then we were told that milk was the ideal food and should be given every two hours. Now the fad is peptonized milk, six or eight ounces every three or four hours. This is less objectionable than crude cow's milk, but more objectionable than milk whey, which was formerly allowed. Previous to the crisis whole milk is unfit food, because it prolongs the fever, causes headeache when there was none, and aggravates it when present. It renders the bronchial secretion more tenacious and the expectoration more difficult.

At the last annual meeting of the A. Ph. A., Prof. J. U. Loyd read a suggestive paper on some of the properties of water, which induces me to copy the following from M. S. book of recipes which has been handed down from mother to daughter through six generations. Having compassion on the compositor, the spelling is much modernized: "To make one day's food for one that hath a fever in his lites, take of well water sound and sweet four pints, and of meal that kind he liketh best two great spoonfuls. Mix the meal with one pint of

the water cold and boil, adding of the water a little at a time until the four pints are boiled into a pint. If he koff much, cast in a great pinch of dried flowers of sweet elder, boil a little time and strain then cast in a little salt. If he sleep not, or if he talk in his sleep, instead of elder flowers cast in three smellage (celery) leaves cut fine. Of this give four great spoonfuls every three hours. It doeth more good if given very hot."

Well water is, as a rule, richer in calcium than is river or spring water, and in view of the recent discovery of the role calcium plays in animal physiology one cannot help speculating as to whether this recipe came from some physiologic chemist to whom even Prof. Loeb might go to school, or from some bedside observer whose acumen and patience any one of us might envy. For it is a fact which any one can verify that the sustaining power of a pint of gruel prepared in this manner is much greater than that of a pint made in the usual way from an equal amount of meal.

Rheumatism and Gout.—Diagnosis, Differentiation per se and from Stimulating Diseases, and the Rational Treatment.

By C. L. Steensen, M. D., Sc. B., Ph. G., Ph. D.

It is not my purpose in this article to go into an extensive discussion of the above mentioned diseases. The text books will give the student and practitioner all desired information. It was a recently published monograph by Dr. Menzer, the celebrated German authority (to which I shall refer later) which prompted me to write this article, at a time when several very severe cases of rheumatism and gout had come under my observation. New remedies for the treatment of rheumatism and gout are numerous, and there are but few which may be used with equal benefit in both the diseases mentioned.

It seems to me that there are few diseases where the differential diagnosis is of greater help to us than in rheumatism and gout, as compared with diseases stimulating them.

In regard to rheumatism, the concensus of opinion at the present day is that it is a disease due to bacterial infection. The *complications*, which occur quite often, affect especially the heart and the nervous system. Endocarditis verrucosa and E. Ulcerosa show themselves frequently where the temperature has been very high, and several joints affected at the same time *Pericarditis* is less frequent.

Inflammation of the sclerotic and conjunctiva sometimes occur—the so-called "rheumatic opthalmia."

Brain affections are not infrequent, and are, as a rule, dangerous and severe. Cerebral symptoms may arise from a urasmic condition of the blood.

The peripheral nerves may be affected by acute rheumatism, but such affections occur more frequently subsequent to the rheumatic fever as a result of pathological changes induced by the disease. Chorea, polyneuritis, neuralgia and sciatica are sequelæ frequently observed. Complications involving the respiratory organs are infrequent.

Menzer, in his recently published monograph, "Die Atiologic des Akuten Gelen Rheumatismus, etc.," absolutely dismisses the possibility of rheumatism being due to anything but bacterial infection. He claims that its most common cause is due to a streptococcus, and that infection in almost all instances takes place through the tonsil. He, however, does *not* regard it as a single disease, but rather as the expression of a *peculiar reaction* of the organism to various forms of infection, the peculiarities of the disease being due to the condition of the individual infected and his method of reaction rather than to the nature of the bacteria.

In this view we must agree with the learned doctor, the more so since his theory virtually explains some rather puzzling conditions which have confronted every practitioner in cases of rheumatism.

Acute rheumatism is pre-eminently a disease of young persons. Infants are rarely attacked, although there have been cases where a baby contracted it from the mother. It is more common *after seven* years of age, and reaches its greatest frequency between the twentieth and fortieth year, (80 per cent. of all cases occurring between these years). How often we see a child limping along with his knee bent and complaining of pain in the leg or joint. "Growing pains" is the pooh-poohing verdict of parents or physician, when in reality the child is suffering from rheumatism.

Sex plays no part in its development, except in so far that men are more prone to be affected than women, because of their greater liability to exposure.

While some authors deny predisposition to the disease, I am inclined to think that such exists in some families.

Location is of course a prominent factor in producing the disease; for it is more prevalent in certain sections, particularly in damp regions and in wet seasons.

Acute Rheumatism.

Diagnosis. The diagnosis of acute rheumatism is not usually difficult. It may be

confounded with the secondary multiple inflammation of the joints, present in many acute infectious diseases such as scarlatina, rubeolæ, diphtheria, pyæmia, etc., and also with pseudo-rheumatic affections of gonorrhœa, syphilis and tuberculosis. But in all these conditions the symptoms of the main disease are present and materially aid us in making a correct diagnosis. (Cheadle).

A large proportion of attacks are preceded by tonsilitis. If a person is morbidly sensitive to damp or cold, and if his susceptibility is shown by development of pains in his joints and facia, etc., *then he is rheumatic.*

If, on the other hand, he is sensitine to food, and if certain articles of diet produce pain in the joints, etc., *then he is gouty.*

Pyæmia is somewhat stimulated, but here cutaneous abscesses are common.

Acute synovitis may come into question, but here it is one joint which swells after exposure and possible trauma, while in acute rheumatism the joints become implicated, one after the other, and the acrid sweat with severe constitutional symptoms makes the nature of the case clear.

Phlegmasia alba dolens may stimulate, but this disease usually occurs in women, with tenderness in the calf of the leg, and there is a history of preceding illness or pregnancy to guide us.

In *syphilitic involvement* of the joints we find pain and tenderness, but no really acute inflammation. Besides the history of specific infection tells its tale. So also in *gonorrhœal arthritis.*

Osteomvelitis is another disease which may be taken for rheumatism if part of a bone near a joint be affected. But here we often encounter pyæmic symptoms which will set our diagnosis aright.

In *Acute Periostitis* we find symptoms simulating rheumatism, but here the putting upon pressure gives us the differentiation.

I have often heard patients complain that the thermal baths ordered made them worse instead of better. We must remember that these baths are of great value in differential diagnosis. After a dozen baths, those having rheumatism feel worse, and the gouty have a typical attack. This I had especial occasion to see some years ago at the Hot Springs, of Las Furnes, in the Azores. Another thing that I noticed there was the natives' firm belief in alkaline treatment for rheumatism. Not only do they take the baths and drink the waters, but at a certain cavern called "Bo oo do Inferno," (The Mouth of Hell) they gather the strongly alkaline mud thrown out at intervals through the volcanic forces, and use it as cataplasms.

Chronic or Subacute Rheumatism.

In this disease there is usually very little swelling of the joints. There is some stiffness, especially upon arising in the morning, and in damp weather. It is very often quite difficult to strike a differentiation between arthritis and gout. But the differential diagnosis can be made from gouty and gonorrhœal arthritis by the large number of joints affected; and from gout especially by the absence of any involvement of the big toe; from osteo-arthritis by no permanent alteration following joint pain and stiffness. (Allen).

Muscular Rheumatism.

Myalgia is most frequent after exposure. Pain usually dull; sometimes burning; aggravated by motion. Forms of this are lumbago, pleurodymia, intercostal neuralgia. Differentiation: Neuritis is probably present if both sides are implicated, and if the pain is intensified at night under influence of warmth and rest, and relieved by moving around in daytime. (Allen).

Rheumatoid Arthritis.—(Arthritis Deformans.)

Arthritis Deformans: osteo-arthritis deformans; progressive polyarthritis deformans; nodular rheumatism, or, as it is often called, rheusatic gout, is to be differentiated from both the affections whose names go to form the latter hybrid designation. (Allen.)

Diagnosis: Pain in the joints and atrophy of muscles connected with them, while the bony structures become enlarged and distorted. It is a progressive polyarthritic form of chronic rheumatism. (Baumler.)

Differentiation: Rheumatism is simulated in the earlier stages before deformities occur, when the type is chronic from the first. When, as is usually the case, it is subacute from the beginning, it differs from gout by the characteristic acute paroxysms of the latter. It differs from acute articular rheumatism by being a disease of general nutrition, in part inflammatory, but also in part degenerative. There is, also, anæmia of a pseudo-chlorotic type. In chronic arthritis the process is limited to the synovial membrane and peri-articular connective tissue, whereas in arthritis deformans the process advances to the cartilage and bone. (Strumpel.)

Osler says that Heberden's nodes indicate rheumatoid arthritis rather than gout. A very important differentiation is emphasized by Von Leube, who says that in chronic rheumatism there may be connective-tissue ankylosis, but in arthritis deformans this is never the case. Arthritis deformans most frequently occurs in persons between thirty

and forty years of age. It may be found, in rare cases, in children from ten to fifteen years. Differentiation in anatomical lesions may be determined by x-ray examination.

Prognosis: The prognosis is rather discouraging. Permanent deformity and crippled condition.

Gout.

Gout is either acute and transient or chronic and persistent. In acute gout there is evidence of general disturbance of metabolism, intestinal derangement, portal disturbance, nervous disturbance, and skin dry and unperspiring. (Allen.)

Dr. Geo. Lorimer found that (1) among hospital patients a large proportion of those suffering from gout had suffered from lead poisoning previously. (2) Patients who are subject to gout are especially subject to plumbism, and in those predisposed to gout the latter may be induced by administration of lead salts. This was shown by the disappearance of gout when the lead was withdrawn and its reappearance upon the renewed administration. (3) "Under the influence of lead-salts the blood becomes charged with uric acid, with a corresponding deficiency in urine."

That the reader of this article may not become confused by those apparently statements, I shall quote Luff, who says: "It is well to state that uric acid really exists in the blood as a sodium quadri-urate and more rarely as a bi-urate, but *never* as uric acid itself."

Ebstein says that "gout is caused by diminished permeability of the lymph vessels, which carry the uric acid made in the muscles and bones to the blood, thus causing a damming back of uric acid."

Certain it is that there is some disturbance of uric acid formation and elimination, but whether this is the cause or the result of the disease is a moot question. This much, however, seems certain, that the formation of uric acid is due to a disassimilation of albuminoids, and Kossel maintains that it passes through the following stages: nucleine, (2) Xanthine, (3) uric acid.

The final elaboration of uric acid would seem to occur in the kidneys. This is proven by the presence of uric acid in the urine, while the blood is free from it. Luff and other authorities have come to the conclusion that *gout* is a *kidney* disease. Pathology helps the theory of the renal origin of gout. As I have said before, lead poisoning may in some cases provoke a typical attack of gout, but we will find in such cases, as in gout, *that the kidneys are always diseased.*

According to Critzman there is always renal lesion in gout, and the lesion is found in the epithelial cells of the *tubuli contorti* which are found to be atrophied. Here we have an explanation why alcoholic stimulants precipitate an attack of gout. Hence our efforts must be towards facilitating the circulation of the kidneys and increasing their power of excretion. To this end we have no better or more reliable remedies than the salicylates and colchicine.

Treatment.

The treatment of the diseases mentioned must of necessity be divided into three classes: (1) the medicinal, (2) the hygienic, (3) the dietetic. The medicinal treatment is of course both internal and external, and there is one remedy which may be used to great advantage in all the diseases mentioned, and that is the salicylates alone, or combined with colchicine, as we have it in colchisal.

When in the early seventies salycylic acid was first brought to the knowledge of physicians, it was hailed with joy, and considered almost a specific. But by degrees the enthusiasm cooled and physicians began to notice that they did not obtain the favorable results which they had in the beginning. This was partly due to the following reasons: (1) Because the salicylates were used in pseudo-rheumatism, (2) because instead of the salicylates derived from natural sources, synthetic preparations were put on the market. What the natural sources are, and which are the synthetics, of course every physician knows.

Another cause for disappointment, I believe, is the fact that physicians while using the salicylates in combination with other remedies very often neglect to use the one which is the most efficacious—colchicum, or rather alkaloid colchicine. This may be because colchicum did not always give satisfaction owing to the variation in strength in the drug, while some physicians erroneously thought that the alkaloid was irritating. There are no two remedies which more naturally aid and complete each other's action than Colchicine and Methyl-Salicylate.

Alex. Smith says (in Foster's Therapeut.) about the active principle in colchicum: "But over and above all it is especially antagonistic to a gouty condition. There are other drugs which cause similar effects on the liver, kidneys and the skin, but they have not the influence over gout which it has, and it may be called a *specific* in gout.

Acute Rheumatism.

In speaking of the internal medication in the disease, I must revert to Dr. Menzer's article, part of which has been previously quoted. If (as is no doubt the case) rheumatism is due to bacteria, certainly the ad-

ministration of salicylates, which are strong antiseptics, is rational. Germain See and others advocated pushing the salicylate until *tinitus aurium* was produced, believing that not until then did they get the full effects of the drug. But the ringing in the ears was more likely due to the use of impure salicylates and can be avoided by using pure Methyl Salicylate as we have it in Colchi-Sal.

As to treatment, Osler recommends the salicylate compounds at times in combination with iodides. Foster says: "The salicylates are very beneficial in follicular amygdalitis of rheumatic origin." Moritz and Marquat also recommend them, the latter stating that attacks of genuine *acute articular rheumatism* are susceptible of rapid amelioration under the influence of *Colchi-Sal.*

I always use the greatest caution when giving the usual salicylates where the kidneys were sluggish as in pregnancy, or where albuminuria showed itself and where there were heart complications. In such cases I often had to cease giving the salicyles for awhile, or to combine them with such remedies as were indicated as e. g. Potass. Acet. Spir. Ammon. Arom. Digitalin, etc.

While I, of course, still "watch out," I can say that since adopting the rational treatment of using Colchi-Sal Capsules, I find less cause for apprehension. *Gastric disturbance is a thing unknown where Colchi-Sal is used*, and there is as a rule *no heart depression.* This stands to reason; (1) because of the small doses of Colchi-Sal necessary, (2) because the basis of Colchi-Sal is a solution of Colchicin in pure Methyl Salicylate, and not a synthetic salicyl preparation combined with a wine of Colchicum of uncertain strength. *Furthermore, we must not forget the tendency to anæmia in this disease*, and hence we can appreciate a remedy which does not interfere with the heart action—as a rule twelve capsules of Colchi-Sal per diem is sufficient; oftentimes less. Now, twelve capsules would be equivalent to 2½ milligrammes (or about 1.30 grain) of Colchicir, and 2 grammes of Methyl-Salicylate (or 30 grns.) And that in therapeutic effect would equal 120 grains of Sodium Salicylate and 60 minims of Wine of Colchicum.

It is well to see to it that the bowels are kept open with mild saline cathartics, such as small doses of Rochelle Salt, or some aperient water. I also always insist on the patient sipping from one-half pint to one pint of very hot water every morning before partaking of any food, and also during the day a cupful or two. If desired, the water may be flavored with a little lemon juice.

Externally may be used an opium lotion. Sometimes relief is afforded by cold applications; e. g. towels wrung out in ice water and covered with flannels, or Betul-ol applied to joints. Of course, if there is persistent hyperpyrexia or cerebral symptoms, cold sponging or cold bath or cold pack should be resorted to. The patient should always wear flannel underwear, sleep in flannel night gowns, and between flannel sheets. In regard to diet, I can do no better than to quote from Dr. W. Dilmann Thompson's Handbook of Dietetics:

"It is not proven that any special article of diet leads to development of rheumatism, although indulgence in sweets, starchy food and malt liquors is sometimes held responsible for it," During the febrile stage and when symptoms are acute, the patient should be put upon fluid diet. Milk or bread and milk exclusively preferable. Patients who cannot take milk may have soup, broths, chicken soup, milk toast, barley, or oatmeal gruel or clam broth. Thirst is often prominent. Give plenty of pure water to wash out waste products; lemonade; dilute phosphoric acid in water; effervescent mineral waters, vichy or seltzer and milk, no alcohol unless complications of endocarditis or pericarditis make stimulation necessary. When convalescence is prolonged and there is much anæmia, a glass of claret or burgundy or diluted whiskey, may be given two or three times a day. Avoid sugar. During convalescence give farinaceous food. Return by degrees to solid food. When convalescence becomes established, the patient may have eggs, fish, oysters, the white meat of chicken, asparagus, spinach, celery, baked apples and fresh fruits, but sweets and alcohol should long be withheld."

Thompson also advocates frequent feeding, allowing one or two extra lunches during the day to counteract anæmia.

Chronic Rheumatism.

In this disease we again find the salicylates to be a good standby, sometimes alone, sometimes in combination with colchicine and the iodides. I have found that three Colchi-Sal capsules three times daily, given with fifteen minutes interval will effectually allay the pain, and let me say here that it is always well to let fifteen minutes elapse before taking each capsule. When 50 capsules have been taken I stop, and then give ten grain strontium iodide, P. J. three times daily after meals, dissolved in water or milk. Keep the bowels open. *Externally:* Painting with iodine, hydrotherapy; massage, painting the affected

parts with a mixture of equal parts of Betul-01, Oleic-acid and 01 Terebinth has been recommended.

Dr. George S. Post (Therap. Gazette, Sept. 15th, 1902) reports good results in both acute and chronic rheumatism from applying a coating of pure ichthyol over the affected joints, covering with cotton and oiled silk. At the same time he gave Sodium Salicylate, gr. X every five hours.

Diet: Basis of food should be farinaceous. As more or less anæmia prevails, animal food cannot be excluded. Mixed diet best. (Thompson.)

Allowed: Fish, eggs, fowl, milk and lemonade during meals. Have plain cooking, eat moderately.

Avoid: Dark meat, high game, fats, sweets, alcohol, cabbage, tomatoes, sorrel.

Muscular Rheumatism.

While internal medication does not in this disease play as important a part as in articular rheumatism, still, in the acute form of it, the same treatment may be used with benefit as in acute articular rheumatism. In sub-acute or chronic muscular rheumatism, as lumbago, intercostal neuralgia, torticollis, etc., pilocarpine may do much good. I have also found gelsemine very useful in myalgia and intercostal neuralgia. *As an analgesic Colchi-Sal is valuable*, alone or combined with chloretone. Of course rest and warmth are necessary, and massage and electricity splendid adjuncts. Externally liniments containing Methyl-oleo-Salicylate (Betul-ol) and chloroform are soothing. I have found the pure 01 juniperi combined with a mild rubefacient and some anodyne liniment to be the best for external use. A formula which will answer all purposes is:

Ol. Juniperi,	ʒi
Lin. Belladonni,)	
Lin. Aconiti, (	*aa* ʒss
Ol. Sinapis,)	
Lin. Chloroform, gutt V	g. s. *ad* ʒ iii

Rub well into affected parts, half dozen or more times daily, cover with cotton batting.

Arthritis Deformans, or Rheumatoid Arthritis.

This disease is one particularly apt to attack those whose vitality is run down. Any treatment to be effective must be persevered in for a long time, and the principal aim of the physician must be to build up the system. The patient should be put on iodides in some form, e. g. arseniate of iodide and iron; guaiacol is useful; alkalies should be given. In Europe more so than here, the Syr. Ferr. Iodide is used and has given good results, especially when combined with cod liver oil. As an anodyne and analgesic Colchi-Sal is desirable. It is necessary that the patient should have plenty of animal food. Wine is allowed, and a glass of stout once or twice a day is a good help; provided there is not a general or local contraindication, the patient should take as much nitrogenous food as can be digested with facility. (J. Sewart.)

"I consider it of the utmost importance throughout the whole course of the disease to support the system and allow the patient as nourishing a diet as he can properly digest; good roast beef, steak, eggs, fish, fowl, mutton and milk, malt liquors and wines as judged best." (Garrod.)

"Fats, as bone-marrow, cod liver oil, olive oil, if acute exacerbations occur, diminish food. (Thompson.)

"Absolute rest is necessary. Hot air baths of greatest value. Flannel should be worn next to the skin. Change of climate is often beneficial." (Stewart.)

Gout and Lithemia (Amerıcan Gout.)

When we turn to such eminent authorities as Sir Dyce Duckworth, Garrod, Laborde and others, we find them unanimous in recommending Colchicum in the treatment of gout. We know that it is a specific in this disease, and that the alkaloid colchicine is more acceptable because of its reliability. We know that the salicylates (of which Methyl-Salicylate is the one to be preferred) increase the flow of urine and bile and act as antipyretics and analgesics.

No wonder then that in Colchi-Sal we have the acme of excellence in medication for gout, prophylactic precautions should be used. Children of gouty parents should have an abstemious diet; it should be evenly balanced, neither animal nor vegetable food being in excess. Sweets, confectionery and rich pastry should be prohibited, as should any and all alcoholics; coffee and tea allowed in moderation. The adult patient should have absolute rest. Alkaline aperient. Flushing of the alimentary canal by drinking hot water, half a pint to a pint, once or twice daily, at which time it is well to give 10 15 grains of bicarbonate of soda. Also give capsules of Colchi-Sal according to Laborde's method:

First day, 4 capsules 4 times daily; 15 minutes interval between each capsule.

Second day, 3 capsules 4 times daily; 15 minutes interval between each capsule.

Third day, 2 capsules 4 times daily; 15 minutes interval between each capsule.

Fourth day, 1 capsule 4 times daily.

Then stop treatment for 6-8 days, and if necessary begin over again. The affected part should be wrapped in cotton batting or flannel, after applying a liniment of—

℞	Atropin Sulp.,	gr. ½
	Morph. Hydrochlor,	gr. iv
	Cocaine Hydrochlor,	gr. x
	Betul-ol	ʒii

Rub gently into painful parts. The treatment here recorded will be found the best in acute cases. The diet should be almost exclusively milk. In chronic cases Colchi-Sal capsules should be given; 3 capsules 3 times daily at meal times during the first week of attack. The second week give Lithii Benz. gr. v, three times daily at meals. The third week start again on Colchi Sal. Externally use liniment as given above. The diet should be such as to brace up the system, but no meat is allowed.

In cases of gout, or for persons of a gouty diathesis, careful observation of the diet, as ordered by the physician, is of the greatest importance. "Fat and nitrogenous food should be restricted, and sugar entirely prohibited." (Thompson.)

"Avoid all wines containing sugar, as a single glass of port or champagne has been known to bring on an attack. If any wine is allowed it should be a light Bordeaux or dry white wine." (Thompson.)

When acute exacerbation occur, curtail all variety and put patient on light farinaceous food with an abundant diluent; alkaline water, weak tea, gruel, toast. When acute symptoms abate, boullon, clam broth, lean mutton broth, or chicken broth with rice, may be given." (Thompson.)

Arrow-root, semonille, milk, weak tea, cocoa shell tea, later chicken broth and a mealy roast potato. No meat allowed until all acute symptoms have disappeared, and then *only once* a day. A little diluted whiskey or brandy allowed, not over two ounces per diem. No fruit allowed. (Sir Dyce Duckworth.)

Luff maintains that the mineral salts contained in spinach, turnip tops, string beans, brussels sprouts, cabbage and celery prevent gouty deposits in the tissues by increasing the solubility of soda-biurate and retarding the conversion of quadri-urates into bi-urates.

In concluding this article, I again wish to say that I do not pretend to have brought forth anything which some of the profession do not know. But I am sure, judging from conversation with confreres, that I have pointed out something which not all of them have deemed worthy of attention, to-wit: the use of Colchi-Sal in preference to other salicylates and colchicum preparations, and the necessity of keeping the rheumatic and gouty patient within dietary limits.

N. Y. City, September, 1903.

A Rational Method of Treating Whiskey and Drug Addictions.*

By S. M. Crowell, M. D., Charlotte, N. C.

Realizing the increase of the whiskey and drug habits, and the inadequacy of the majority of the present day methods of treating such habits, I submit the following paper to the Convention for consideration.

The Aeteology of these habits is too well known for a lengthy discussion, but we shall mention a few of the leading causes. The medical profession is responsible for a large percentage of morphinism by its indiscriminate use, both by the mouth and the hypodermic syringe, giving it often when not indicated or when other drugs or means would accomplish the same purpose. For illustration, there is a tendency to give it to patients after prolonged debauches and thus establish the addiction. In fact in this age of rapid business and professional competition, it is the tendency of the physician to give a hypodermic of morphine to quickly relieve his patient of any pain he may have so as to hurry to another call and return late to examine and prescribe for the patient. This learns the patient the use of the morphine and its exhilarating influence and the tendency is to use it himself on a return of a similar condition. But the family physician is not responsible for all the habituations by any means. Occasionally a physician will use it "for his health" as he terms it, i. e., he will take a little for some slight real or imaginary pain so that he can continue to do his practice. A classic illustration of this is the celebrated case of the famous English man-of-letters, De Quincey, who contracted the opium habit in his youth at the advice of an indiscreet drug clerk, thus establishing an addiction. Sometimes people become addicted to opium by beginning on some secret or proprietary remedy containing opium for some pain or ailment and on finding it out discard it to take up opium in some form. Again they begin its use for some pain to wake up later to the sad fact that they have become a slave to the drug. It is our opinion that all opium fiends become such accidentally and not voluntarily. By some means the great mass of the people have learned the doses of the various morphine tablets, and the strenuous business life of the American people, the various social functions of the more intelligent classes, and the poverty and the hardships of the lower classes so lower the vitality of the body and exhausts nerve and brain force that they voluntarily resort to the morphine tablets for temporary exhilaration and thus

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unintentionally become addicted to the use of morphine before they realize it.

The professors in our Medical Colleges describe at great length the value of morphine and other drugs but say little of their possible dangers. They should emphasize the dangers. My experience has been that a great number resort to opium in various forms, paraldehyde, choloral, cocain and other narcotics, and stimulants after a debauch on whiskey when it cannot be obtained, or when from social and business reasons whiskey is not tolerated.

Pathology. In using opium in any form there are no structural changes; they are only functional. The changes are to be found principally in the brain, cord, nerves, the alimentary and urinary tracts and appendages, the vascular system and the skin. In other words, broadly speaking, the system is surcharged with the drug and effete material as a result of defective metabolism. We are told by our most prominent authors that upon the withdrawal of morphine from a habitue' that we will have the following grave symptoms, viz; colic, nausea, vomiting, diorrhœa, rapid labored breathing, irregular heart action, collapse—sometimes proving fatal—extreme prostration, cold clammy sweats, accompanied by rigors cramps, persistent insomnia and perhaps maniacal delirium. It has been my experience that these symptoms are not due to the withdrawal of the drug but to the perverted functions. This habit is amenable to treatment with the probability of a permanent cure if properly treated.

Treatment. There are three methods in use today, viz: (a). Gradual Reduction. (b). Rapid Reduction. (c). Sudden withdrawal. I am aware of the fact that the "tapering off" method appeals to the preconceived mind of the patient, and too often to that of the physician as well, but to my mind the sudden withdrawal is the only rational method. Owing to the fact that it is impossible for this class of patients to be successfully treated outside of a Sanitarium, physicians have given this subject but little serious study and research. Consequently their writings and observations have been made upon the hypothesis of some author who possibly has given the subject no more serious study than they themselves, hence the tendency is to give this class of disease a gloomy prognosis. In using this gradual method as given us by Erlenmeyer, Levinstein, Anders, DaCosta, Murrell and others of national repute, it is no wonder that we have the above train of symptoms, for by gradually reducing the drug it is impossible to remove the pathological conditions which produce those unfavorable phenomenæ. Besides this, the long drawn out reduction so exhausts the nerve force and the will power of the victim that by the time he is off the original drug, that he is in worse shape than when he began on treatment, having neither physical nor psychological ability to resist the slightest pain or temptation. By these gradual reduction methods the patient is given medicine, for approximately, two months, ostensibly to take the place of the original drug and being thus trained by those he considers his mental superiors on this especial line, the natural tendency is for him to begin to substitute himself and finally return to the original drug, after having been dismissed from the Sanitarium and thrown upon his or her own responsibility.

Sudden Withdrawal. After having conscientiously studied this subject, both theoretically and clinically for several years, I have come to the positive conclusion that the most efficient help for this unfortunate class of humanity is by the sudden withdrawal of the drug. But some one says, "you will thus cause your patient to suffer intensely or probably die in treatment." I answer by saying that facts do not sustain the assertion. The primary object in treating any disease should be the removal of the cause as rapidly as possible. That you must do in this disease. The above unfavorable phenomenæ referred to are not due simply to withdrawal of morphine. They are due to the effort of nature to eliminate the effete material from the system. Here we must assist nature by artifically beginning elimination while still under the benumbing influence of the morphine, for ever since the patient began the use of the drug, both secretory and excretory organs have been retarded in their function, hence the storing up of this effete material, and when the effect of the opium is withdrawn, the patients' sympathetic system awakens to the fact that it is being imposed upon by this surplus load of poisonous material, and begins an active effort to eliminate it. If this elimination is performed by the aid of the proper agents at the proper time, you will not have the above mentioned troubles and a number of other symptoms of nervous and mental origin. As the good results looked for depends largely upon the thoroughnes of the elimination of the effete material, and stimulation of the excretory and the secretory organs, it is very important that this special phase of the treatment should be emphasized.

The elimination is begun upon the patients entering the Sanitarium, (and they cannot be treated outside of one.) The first thing to do is to give the patient a hot bath. If the kidneys are not acting well

give some simple diuretic. Late in the afternoon, say at 4 o'clock, begin on some good purgative, eating neither dinner nor supper. Ordinary purgative will not accomplish the desired effect. I find the following very efficient. ℞ Hydrarg. Chlorid Mite, gr. X: Pul. Ext. Cascar or Cascarin, gr. X: Pul. Ipecac, gr. II: Strychnin, Nitratis, gr. 1-6 1-2: Aloin, gr. I: Ext. Colocynth. Co. gr. V: M. et ft. Capsule No. IV. Sig. One at 4-6 8 and 10 o'clock. (Morphine patients bear heroic doses of all medicines.) The patient should have his accustomed amount of morphine till bed time, say 10 o'clock, when it is stopped and he is informed that it is his last dose. Practically eight hours after the capsule give the patient some good saline cathartic and repeat every two hours until there has been produced several very free actions from the bowels. In this we have such a combination that the aloin and Colocynth empty the lower bowl, the strychnine will so stimulate the peristaltic action that the entire contents of the small intestines will empty into the colon and be evacuated as a result of the increased peristalsis. The relaxing effect of the Ipecac, together with the increased secretion from the mucous surfaces caused by it, is supplemented by stimulation of the eliminating glands by the mercury and cascara, together with the accelerated intestinal motion from the strychnine. This alone would fairly well empty the bowels, but there is still work for the saline cathartic. Its depleting flooding action carries into and out of the alimentary tract a still further residue of effete material and of the drug against which the fight is being made. It is well now to give another hot bath. You now have elimination well established. We have often been asked how we could accomplish the elimination so quickly. We answer by saying that it is not yet complete--only started up well—that the process is similar to breaking a hole in a dam. You get rid of the greater part of the effete material in the course of 8 to 12 hours, and so stimulate the excretory and secretory organs that the elimination is completed in comparatively a short while thereafter. As the greater part of the water, mud and drift material is drained from the pond soon after breaking the dam and there is still a remnant to drain off, just so in thus depleting the human system. By this time the benumbing influence of morphine will have died out, and the patient would naturally suffer some while nature was trying to eliminate this remnant of effete material if something were not done to prevent it. But the greatest obstruction has been removed and the system in comparatively a normal working condition. Your patient in bed, the heart has little to do but pump the blood along on a level and if that organ is at all sound, it will do this without difficulty, notwithstanding the withdrawal of the artificial stimulation of morphine, for the unloading of the intestinal canal and relief in portal congestion lessen the strain under which the heart has been working more than enough to compensate for the loss of the stimulus it derived from the drug and instead of a weak and irregular heart the character of the pulse is decidedly improved. However should the heart coincidentally be weak, treat it rationally as in any other disease. Spartine Sulphate is an ideal cardiac support in these cases. Most of the other symptoms are of a nervous and mental origin. It is true that the administration of the original drug, or a derivative, would allay these symptoms from four to twenty four hours, but as soon as the primary effects subside, the secondary effects would predominate the system, and the patient would practically be in the condition we found him. While the elimination is being completed to keep him quiet and free from pain, administer some nerve sedative. For this we find Hydrobromate of Hyoscine a very valuable drug and the one that we use in all cases, combined with a little Hydrochlorate of Pilocarpine to stimulate the salivary and sudorific glands. Someone might think that this is substituting, but it is not so for the effect of Hyoscine is radically different from that of morphine. Dr. Petty, of Memphis, Tenn., says: "It seems to act upon different centers," and by giving rest to those acted upon by morphine, thus stimulating them to normal activity. Besides, as the Hyoscine has to be administered for only the short period of from twenty four to forty eight hours, there is no danger in establishing a Hyoscine habit or in any way perpetuating a desire for the morphine. The administration of the Hyoscine should be begun as soon as the elimination has been well started up, i. e., as soon as the purgative and diuretic action of capsules have been exerted or as soon thereafter as abstinence symptoms manifest themselves. The dose varies greatly with different individuals, ranging from gr. 1.200 to gr. 1-50 hypodermically, at intervals varying from thirty minutes to six hours. At first the smaller dose should be given and repeated at shorter intervals until sleep is induced or the patient is easy and free from all pain. By giving the minimum doses, you can better be on the lookout for and combat any idiosyncrasy the patient might have for the drug. After this give such doses as are indicated and the patient can tolerate. As

the dosage in one case is no index to that in another, the patient cannot be left to the care of a nurse during the Hyoscine period. The physician must be present during this period to observe the effects of each dose, determining the subsequent one and be on the alert for any trouble that might coincidentally arise. Hyoscine has no bad after effects, neither on the mind or the body, hence it should be given in its full physiological effects are manifested if necessary to produce comfort, for to allow the patient to suffer during treatment impairs his nervous system, lengthens the time during which treatment is necessary and materially adds to the danger of a relapse. It must be pushed to the point of delusious and hollucinatious in all cases. Hyoscine has a tendency to dry up the secretions of the mouth, hence at this period we administer gr.1-10 of hydrochlorate pilocarpine to counteract this inconvenience to the patient and repeat as indicated. It also aids elimination through the sudorific glands. Also, seems to add to the sedative and relaxing effects of the hyoscine. The patient should be kept thoroughly under the influence of the hyoscine for a period of twenty four hours from the time it was begun; then its effects should be allowed to subside. In most cases this is sufficient. If at the end of this time there should be any desire for morphine or the patient be uncomfortable from abstinence, a full dose of Hyoscine should be given and after its effects have subsided it should be repeated, if necessary, until the patient expresses himself free from all desire for the morphine. If the eliminative course has been what it should, it will very rarely be necessary to continue the Hyoscine over twenty four to thirty six hours. At the end of this time the patient will remain free from pain and nervousness, will sleep from four to eight hours out of each night, have no craving for morphine and in a very short while have an appetite hard to gratify. At the end of this Hyoscine period while the patient is weak, and in the proper physiological condition, and most susceptible to suggestion, I often offer them the drug for which they are being treated, assuring them that it will make them sick. The great majority of the patients will not take it, and if they do, it will cause them to become nauseated and to vomit. This is a combined physiological and psychological effect, and aids very materially in fortifying against relapse after they leave the Sanitarium. No other medicine is needed nor should be given except in unusual cases. The patient is now ready to get out of bed at which time give him a hot bath which should be kept up at least three or four times a week, alternating with cold douches or sponges as the seasons and conditions indicate. The electric baths are being used by some. To my mind static electricity and the ultra-violet rays are more valuable in these cases than the electric baths. I have used the former but not the electric baths. With the rays we get practically the same results as with the baths, and in addition the stimulation of all the thordcic and abdominal viscera by means of the penetrating power of the rays of light. The electricity gives massage and the proper stimulation to the muscles, nerves, vascular system, etc., and the exhilaration so much desired in these cases. The diet should be light and easily assimilated. Do not permit alcohol in any form, at any time during treatment to drug patients. If only exhilarates temporarily to allow the system to suddenly fall below normal which condition invites a return to the original drug. Impress this fact as well the necessity of letting all drugs alone on the mind of the patient so that he will not make that mistake when he leaves the Sanitarium. Do not give strychnine as a routine treatment as taught us by most authors, for it will unduly stimulate intestinal peristalsis which prematurely expels undigested food, depriving the system of its nourishment and thus setting up diarrhoea by the particles of undigested food irritating the intestinal mucous membrane in passing over it.

The Psychological Influence. The physician should thoroughly impress upon the patients mind the gravity of and possibility of a relapse. A patient is more amenable to suggestion during convalescence than in any other stage—except that of hypnosis—hence the physician should be very careful to make the proper impressions on his patient as to his future conduct.

Time Required. This varies with different patients from three to six weeks. As soon as possible he should be encouraged to get out for exercise and put upon his own resources, and educated how to live without taking medicine before leaving the Sanitarium. His fixed habit of dependence upon a drug is to be supplanted by a counter habit of independence. This is one great reason why no "tonic" should be given. So long as a patient takes anything called a tonic or medicine, be it ever so weak, his mind clings tenaciously to the idea that his existence depends upon it, and he thus meets an obstacle in his attemps to establish independence of his will power. Under this plan the great majority of drug and whiskey patients can be cured and reclaimed and fitted for useful positions in life. Those who form the habit accidentally are the more favorable of course, but all classes are amenable to and should be treat-

ed. The greatest majority will not relapse by this method. Those who are more fond of dissipation and misery than a normal, pleasant useful life will relapse by any method, and at all hazards. We believe the reason for so many relapses is not due to the patient always, but to the method and Institution by which he has been treated. The principles here given, with some variations, can be applied to all drug habits, including alcohol in all forms, Paraldehyde, cocain, chloral, tobacco, etc.

The Treatment of Pneumonia*

By Thompson M. Baird, M. D., Norfolk, Va.

Let us first glance briefly at the mortality of this disease before taking up the treatment. The Bulletin of the Twelfth Census of the United States reports the following statistics gathered by enumerators from all over the United States: Deaths from tuberculosis for the year 1900, 111,059; deaths from pneumonia, 105.971.

According to these figures there were 5,088 more deaths from tuberculosis than from pneumonia during that year.

The Director of the Census announces that he does not consider the above report correct. He computes the death rate of all diseases from reports received from the "registration area," which includes all States and cities requiring physicians to report to proper officials the cause of all deaths occurring in their practice.

This "area" is composed of the following States: Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont, the District of Columbia, and 153 cities having more than 5,000 inhabitants. Ths total population being 28,807,269.

Within this "area" there were 55,296 deaths from pneumonia, and 54,898 deaths from tuberculosis, pneumonia claiming 398 more victims than the dreaded tuberculosis during the year 1900.

From the foregoing figures it will be seen that pneumonia is the most fatal malady we have to contend with.

Even were we to doubt the accuracy of the above figures, we are compelled to acknowledge pneumonia to be the most fatal of all acute diseases, with an increasing death rate. Until within recent years pneumonia was considered an acute inflammatory disease of the lungs. Since Fraenkle and others have isolated the pneumonoccus, we recognize pneumonia to be an acute infectious disease, manifesting itself as a general toxemia, with local disturbance in the lung.

*Read before the Seaboard Medical Society, Dec. 15, 1903.

It will be impossible to outline a special treatment of this disease until a specific has been found.

A reliable antitoxin has not yet been perfected, but experimenters on that line believe we will in a short time be able to treat pneumonia with serum as successfully as we now do diphtheria.

The pneumonia patient should remain in bed throughout the attack and until convalescence is well established. Alarming symptoms may ensue from allowing the patient to rise while the bed is being arranged, or to have a bowel movement. Care must be taken not to over burden with bed clothes, very little cover is needed for comfort. A light woolen shirt may be worn under the gown, heavy pneumonia jackets are not recommended. The sick room should contain only necessary furniture, partially darkened, but cheerful looking.

Pure fresh air should be allowed in abundance, as oxygen in large quantities is needed to supply the demand of the crippled lung.

Issue strict orders allowing no one in the sick room except the attending nurses, absolute quiet is necessary, and the patient should not be allowed to talk, as it aggravates the cough.

The diet should be composed of liquid food entirely. Milk if well borne is the best; beef, chicken, mutton or squirrel broths are nourishing and agreeable. It is a good idea to alternate with these foods, that the patient may not grow tired of any one of them. Egg albumen is also nutritious, and is pleasant and palatable when given in lemonade.

Do not fail to give small quantities of water at frequent intervals. It should be given as religiously as nourishment, it acts as a diluent, diuretic and diaphoretic, besides acting as a laxative. Carbonated water is agreeable to the patient and relieves nausea. It has a tendency also to loosen the glairy mucus that accumulates in the bronchi.

A tepid water or alcohol sponge bath given twice daily will do much good by keeping the pores of the skin open and acting as a sedative. When the patient grows restless and the skin hot and dry, a hot mustard foot bath will work wonders, a sweat is more than likely to ensue, and the patient drop into a sweet, refreshing sleep. When the temperature reaches 104 deg. F., a modification of the Brand bath is advisable. It will reduce the temperature and quiet the excited nerves. It is as important to use this method in the treatment of high temperature in pneumonia as it is in the treatment of typhoid fever. So long as we keep the temperature within bounds we are not

likely to have grave nervous symptoms to contend with, and the strength and resisting powers of the patient will be greatly increased.

It is of importance to wash out the mouth of the patient at regular intervals with a mild and pleasant antiseptic solution, to get rid of accumulated germs that may be a cause of reinfection, and for the comfort of the patient.

What drugs are we to use in the treatment of pneumonia? It were far better to give no drugs at all than to over-do the matter. What is our object in giving drugs at all? Do we hope to kill the germs, or abort the disease? Most assuredly not. Pneumonia is a self-limited disease, running a long or short course according to the severity of the toxemia. A very small area of lung tissue may be involved, and the patient profoundly toxemic; again, both lungs may be attacked and the toxemia mild.

Salicyliate of soda, carbonate of creosote, veratrum veride, and a host of other drugs are spoken of by their adherents as specifics in this disease. Their day is short, and they will go the same road as went the Woodbridge treatment of typhoid fever. What are we to do if we cannot cure this fatal malady with drugs? We should sustain the heart's action and keep the system in as good a condition as possible, until the disease has run its course, and our mortality will be much less than by the injudicious use of too much medicine.

Three to five grains of calomel, followed by a half ounce of rochelle salts, should be given at the onset. This will thoroughly empty the bowels and relieve the congested liver. It may be necessary to repeat the calomel later in the disease, if the occasion demands. It is a good practice to give a daily dose of rochelle salts, causing the patient to have two or three watery actions each day. If such is the case, the kidneys will be relieved of some of their work, and deleterous matter cannot accumulate in the intestinal canal.

For the agonizing pain in the side a hypodermatic of 1.6 to 1.4 grain of morphine will give quick relief. Should the pain return, by applying an ice bag to the affected side it will be relieved. The ick pack to the affected lung will not only control the pain but lower the body temperature, and by contracting the smaller vessels prevent to a great extent the stagnation of blood in the congested lung.

If the hacking cough causes much pain and discomfit, it may be necessary to give one-half to one grain of codeine every three or four hours to produce relief. If the ice pack is used, this is rarely necessary. Do not give an opiate unless it is absolutely necessary, for our desire is to keep the secretions active.

If the sponge baths are used, we rarely need a hypnotic. If one is demanded, 1-100 grain of hyoscine hydrobromate hypodermatically will answer the purpose nicely. If carbonated water and lemonade are not sufficient to loosen the mucus, and an expectorant is needed, one-half drachm each of spts. ammon. arom. and syr. senega given every three hours will act nicely. A great majority of the uncomplicated cases of pneumonia die from failure of the heart, consequently our aim should be stimulate the heart and anticipate and combat any tendency to heart failure. Strychnine and alcohol act as direct heart stimulants; while the effect of alcohol is not so certain as strychnine it certainly assists the action of the strychnine especially in this disease. From the very first give 1-60 grain strychnine every four hours, later in the disease when the heart shows signs of fatigue give larger doses even to 1-20 grain. ½ to ½ ounce of good brandy or whiskey should also be given every four hours, arrange it so the strychnine and alcohol will be given two hours apart. This should be kept up throughout the attack. Should the heart's action denote weakness, give every two or three hours in conjunction with the above, a rectal injection of two pints of normal salt solution to which may be added one ounce of brandy and the yolks of two eggs. If there is continued failure we should then try subcutanious injections of the salt solution and as a final resort, intra-venous injections of the same solution, at the same time we should resort to hypodermatic injections of 1-100 to 1-60 grain of digitaline. Sustain the heart, keep it going until the toxins have spent their force and we have won the battle. I will not attempt to mention the complications that are met in this disease, but will say that if this line of treatment is carried out we will rarely have complications to contend with.

The fore-going treatment I have used in quite a number of cases, both in hospital and private practice, I am sorry I cannot give statistics of cases treated by this metod, but will say that the death rate was very small. My aim is to keep the secretions active that the germs may be expelled by the skin, bowels and kidneys. Lower the blood pressure by Saline Purgation.

Support the vital forces by giving a liquid and nutritious diet. Sustain the hearts action by giving proper stimulants and keep the temperature within bounds.

Charlotte Medical Journal

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THE DISGRACE OF TYPHOID.

"As a nation we ought to be ashamed of ourselves for the never ceasing destruction of life, caused by so preventable a disease as typhoid fever." The above quotation is from an editorial in the New York Medical Journal of October 31, 1903.

Is the above arraignment a just and true one? Let us study the matter. It is definitely known that typhoid fever is an infectious disease, pure and simple; and that the microbe to cause this disease must be taken into the system by way of the alimentary canal. The germ is found in the fecal matter, the urinary secretions, the perspiration, the saliva and expectoration. Here are four sources and the only recognized ones, by which the germ of infection may be given off. Through this germ in every event the etiology of each case is established. Then if such manner and form becomes the source of the infection, the method to eradicate typhoid fever as a disease from a nation, from the world, becomes plain; simply by destroying the infectious germ at its exit from the body. Once the germs have been corraled or destroyed, there is the beginning of the end, and typhoid will exist only in history, as it well should be; since in its ravages the persons mostly sacrificed to its energy are the youth and strength of the human family, those between the ages of 15 and 45 being most susceptible to the disease. Can the germs be destroyed in every event before they have the opportunity to become a danger to other individuals? Most assuredly. We have various materials which are germacides to the bacillus of the disease, and, if not, let our pathologists ascertain the facts and devise such a material or method that will assure the destruction of the germs in every case, by the fecal matter, the urinary secretions, the secretions of the salivary glands, the expectoration as well as the sweat glands, if those also are infected, which is quite probable. Every stool can be treated most thoroughly by a sufficiently powerful germacide. And when excretions are passed involuntarily, all flies must be prevented from entering, or destroyed before escaping from, apartments occupied by such patients. It is well that such precautions be carried out even under all circumstances during the seasons in which flies prevail, since they are a dangerous carrier of germs to the food of unaffected individuals. All expectorations and clothing should, or rather must, be carefully passed through some disinfecting process. And all excretions and waste must be properly deposited after the disinfection, in some point at a safe distance from any drinking water or possible drainage into underground streams.

Every source by which the germs escape from the individual should be guarded and thorough disinfection carried out. The disinfecting process should be inaugurated at the earliest suspicion and go on, whether positive proof of the presence of germs maintain or not. The positive existence of germs in the urine is not assured, nor at all times are they supposed to be found. The surety of the process and of the work is the point to be aimed at. The effort to carry the pursuit of the germs by an exhaustive method of destruction is the plan and course to follow. The plan should be simple and easily understood, that it may be readily carried out by the nurses in charge.

The well known epidemic at Plymouth, Pa., in 1885, is an example of what might have been done to prevent the occurrence of an outbreak. If the stools and excretions of that one case had been sterilized, instead of having been thrown out on the frozen creek-side, the calamity of the Plymouth outbreak would have been prevented. The mass of people would never have known what they escaped.

Every densely or compactly populated ection or community should provide itself with water for drinking purposes free or freed from infectious material of every variety.

Various cities of the United States have veritable endemics of the disease prevailing to a marked degree, and are never without cases of typhoid. While at the same time a neighboring city or community may be entirely free of the disease by the fact that their supply of drinking water is put beyond the possibility of contamination.

Every city should provide a supply of drinking water free from all germs, and no city is pursuing an honest or honorable course in this problem towards it citizens until such a supply of pure water is provided.

Osler says: "Infection of water is unquestionably the most common mode of conveyance." Milk is contaminated by milk cans being washed with polluted water. Oysters are a source of danger. The germ can exist for a long time in the oyster, and will live in brackish water even when frozen."

"It is only too frequent in many parts of the United States to allow objectionable

drainage to pass into a stream from which some town or city derives its water supply. Rivers have become open sewers, lakes gigantic cesspools."—"The purification of Water Supplies by slow sand filtration," Journal American Medical Association, Oct. 3rd. Water intended by individuals for internal use, if not positively free of the germs of the disease, should be boiled or sterilized as are most foods before we take them internally.

In Philadelphia, during August and September, 1903, a number of wards supplied by filtered water were visited by an outbreak of startling dimensions of typhoid fever. Dr. Abbott, Chief of the Philadelphia Health Bureau, went to work to discover the cause of the outbreak, and he found that in each division where such cases occurred the wards were supplied with milk by individuals in whose families typhoid fever had existed or did exist at that time. In the one instance two cases "which were represented as fever, billious remittant fever, with some symptoms suggestive of typhoid fever, but not enough to justify a positive diagnosis, and not enough to warrant them reported as cases of typhoid fever. The source removed, the outbreak subsided."—New York Medical Journal, Nov. 23, 1903, page 1001.

Every public supply of milk and other food which may be used without being cooked or sterilized should be under strict supervision by expert or capable sanitarians.

The precautions should have been carried out if the least suspicion of typhoid fever existed, especially where a mass of people were interested or jeopardized.

Until such innovations are established, the suffering and deaths from typhoid fever will continue to cry out in accusation against us as a nation, and the crimination remains as a true and just arraignment. Let the American Medical Association, the State, County, and all local or national Medical Associations, State and municipal Boards of Health continue to agitate the matter until our country is supplied with a purified drinking water, free from all germs. Let State and municipal powers act in this matter with the intelligence characterizing a nation of progressive people and we will clear ourselves of this crimination.

PNEUMONIA'S MARCH.

In the news report of the mortality of Chicago for the week ending October 24, 1903, in the Journal of the American Medical Association, a quotation is made from the Bulletin of the Department of Health of Chicago which says: "The community is again facing the beginning of the murderous pneumonia season." Basing the calculations of the records of deaths for the past ten years from pneumonia, it is estimated that between the beginning of November and the end of May in Chicago alone there will be upwards of 2,100 deaths from this disease. The news items for October deaths from pneumonia in Chicago 195, or 10 per cent. of the total deaths, is unusual for October. This condition will prevail to quite a degree in many sections of the United States similar to that of Chicago.

During the past two or three decades the disease has increased in its frequency and mortality.

Tyson, in his Practice of Medicine, third edition, says: "The conclusion is apparently unjustified by a study of statistics, but it does seem to to me that pneumonia is a more fatal disease now than when I began practice thirty-five years ago."

With such a calamity threatening the human family each winter and spring season, there is great need for an earnest study and investigation of this disease, not only for the cause, but for the treatment and management of the cases; that the mortality may be reduced to a zero point.

The robust and active individual is the one who is frequently selected by this monster.

The need that a crusade be waged against this "Captain of the Men of Death," as Osler styles it, quoting from Bunyan, that it may be checked in its exterminating career, is as important as any work before the profession to-day.

The great crusade is on in earnest in pursuit of consumption and its devastating course; fully important is it that this other death bearer be pursued, found and subdued.

Pneumonia effects its decided work during the months from October to May.

It is known that pneumonia is an infectious disease and is recognized as due to the influence of the bacillus lanceolatus (pneumococcus), With so much for a foundation, the pathologist and clinician have grounds for building the structure of knowledge of the cause, course and real invasion of the disease. And a special knowledge may be determined upon which will give a clue as to its beginning and how to prevent its entrance into the human economy, or how to check its development if it once finds its host. What we need to discover is the exact knowledge by which the disease may be intimately known so that the germs may be destroyed before they gain entrance into the human body, or preferably as it escapes from the individual af-

fected, as in the case of tuberculous sputum or bacillus typhosis.

Let every pathologist and clinician who have opportunity to work in this line respecting this disease be ever earnest and persistent that the disease may be thoroughly understood, that the medical profession may be enabled to more rationally cope with the disease and reduce the frequency of its ravages.

Here is an opportunity for those connected with the Carnegie Institution who are working in these lines, as well as those working under the Rockfeller fund and all such endowed ability for pathological and clinical work.

MEDICAL BOOK NEWS.

Medical Book News, a bi-monthly journal devoted to the literature of medicine and the allied sciences, was recently launched by the old and well known firm of P. Blakiston's Son & Co., of Philadelphia, Pa., publishers and booksellers of medical books. This little journal is issued bi-monthly in a neat and tasteful style, and filled with information concerning all new medical publications, thus being of interest to those who are anxious to keep posted as to what is being published along all of the lines of the medical sciences.

The July number of this year contained a cumulative list of all leading medical books, American, English, and of all publishers that have appeared since January, 1902, making a number of much value to all medical book buyers.

With this bi-monthly journal one is able to be informed of all of the publications as they appear, and in many cases before they appear, through the column of "Forth Coming Books." All of the different classifications of medical works are noted under the various heads so as to make it convenient to find all of the new books published in any of the lines or departments of medicine. The annual subscription of twenty-five cents is so small that no medical man can well afford to be without the publication.

Book Notices.

Physician's Visiting List for 1904. Lindsay & Blakiston. P. Blakiston's Son & Co.

This is the old standard visiting list, the pocket journal of the physicians of the country for half a century. The price, $1.00, places it within reach of every physician, many of whom could not practice without it. Besides the account pages, valuable handy information, dose list, antidotes and various tables are given in the front pages of the work.

The Practical Medicine Series of Year Books, comprising ten volumes on the year's progress in Medicine and Surgery, issued monthly, under the editorial charge of Gustavus P. Head, M. D. Volume X—Skin, Venereal, Nervous and Mental Diseases. Price, $1.25 per volum; $7.50 for the entire set of ten volumes. Year Book Publishing Co., 45 DearbornStreet, Chicago.

These works are essential to the physician and surgeon who desires to keep abreast of the times. They present in as brief a manner as consistent with clearness the progress of medicine and allied branches during the past year. The doctor who possesses these works will have the satisfaction of feeling that he is up to date.

Transactions of the Indiana State Medical Society, 1903.

This volume contains 488 pages and is neatly bound in cloth. It is filled with the proceedings and papers read at the Richmond meeting. We notice that this society has adopted the constitution recommended by the National Medical Association. Dr. F. C. Heath, of Indianapolis, Ind., is secretary.

Transactions of the American Surgical Association, 1903.

This volume is a record of the twenty first annual meeting of this association. The papers, illustrations and proceedings fill a book of six hundred and thirty pages. Dr. Richard H. Harte is editor of the volume. He has done his work well.

Progressive Medicine, Vol. IV, December, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 434 pages, 46 illustrations. Lea Brothers & Co., Publishers, Philadelphia and New York.

The completing volume of "Progressive Medicine" for the year 1903 contains some of the most important contributions of the series. Dr. J. C. Hemmeter's article on Diseases of the Digestive Tract is really a monograph, embodying the new physiology of digestion as it has been established by the discoveries made by Pawlow, Futterer and others, whose investigations have so completely revolutionized our knowledge of the digestive function. The bacteriology

of Dysentery and the Diarrhœas of Infants; the subject of Intestinal Parasites and the recent advances in the diagnosis and treatment of Diseases of the Liver and Gall-bladder, are fully considered. Diseases of the Pancreas have of late been exciting much attention, and Dr. Hemmeter has devoted considerable space to their discussion.

In the article on Surgery, by Dr. J. C. Bloodgood of Johns Hopkins, there will be found a particularly interesting discussion of the entire field of Anæsthesia, both local and general, considered not only from the standpoint of the surgeon-specialist but also from that of the general practitioner. Dr. Bloodgood's chapter includes, in addition to the subjects above referred to, an exhaustive review of all advances in the treatment of fractures and dislocations, amputations and orthopedics. It is illustrated by a splendid series of engravings in the text, and by six full-page plates in black and colors. The subject of the surgical infections in their various aspects is thoroughly canvassed. A very valuable part of Dr. Bloodgood's contribution is that devoted to Tumors, benign and malignant; all the recent advances in their surgical treatment being presented, and the X-ray therapy of tumors is discussed at length.

Dr. Belfield's contribution on Genito-Urinary diseases covers the entire field in a most practical manner. Of special interest to the general practitioner will be found that part which deals with Tuberculosis and other infections of the genito-urinary tract. The article on the Prostate, especially on the treatment of Hypertrophy of that organ, is of the highest interest.

In dealing with diseases of kidneys, Dr. John Rose Bradford, of University College, London, presents an interesting discussion of the blood changes in chronic renal disease, and particular attention may be called to his able consideration of the surgical treatment of chronic bright's disease. An excellent résumé of the advances in our knowledge of albuminuria and indicanuria is included in the article.

Since the startling announcement made by Koch in regard to the difference between human and bovine tuberculosis, scientists the world over have been engaged in an earnest endeavor to ascertain the actual facts. This subject constitutes one of the most interesting of the topics discussed by Dr. Harrington, of Harvard, in the section on Hygiene. The conveyance of typhoid and other infectious diseases is another topic upon which Dr. Harrington presents the most recent views.

The concluding section of the issue is taken up with the practical Therapeutic Referendum, by Dr. Landis. It is a thorough, up-to-date index of the progress in therapeutics, treating not only of the drugs recently introduced to the profession, but also dealing fully with the physiological action and clinical uses of older remedies. Thus the continued use of Acetone in enteric is noted; the various Antitoxins receive due attention; the coal-tar products are referred to; Vioform, the new neutral powder, and Isarol, the new substitute for ichthyol, are described, and on the other hand it takes two pages to describe the newer preparations of as old a stand-by as Quinine. Dr. Landis greatly increases the practical value of this excellent chapter by introducing a number of prescriptions, showing the best vehicles for the administration of the less known drugs.

In dealing with the contents of "Progressive Medicine," it is impossible to mention more than a few of the subjects of special interest; each contributor, however, will be found to cover most thoroughly the entire field which is assigned to him. The different sections are not mere compilations, but are complete discussions of the various topics under consideration. Because of their standing as consultants and teachers, the contributors to "Progressive Medicine" are peculiarly cognizant of the points possessing interest for the medical profession. It is this knowledge and its practical application which has resulted in the wonderful success of the work.

The publishers announce that, with the new year, the annual subscription price of "Progressive Medicine" will be reduced from $10 to $6, and that, for convenience in carriage, it will divest itself of the heavy cloth binding. The volumes will each contain 300 pages, abundantly illustrated, and the work will continue to be issued under the same editorial management and with the same brilliant corps of contributors which have made it the indispensable assistant to the active, busy practitioner. The series of these volumes forms annually a practical treatise covering the entire domain of medicine and sergery.

The Physician.

In considering the physician we think of him as only a man entirely human, and not entirely free from humanity's weaknesses. Of some of these weaknesses I feel at this time much tempted to speak, but am restrained as was the colored minister who was asked to address a revival meeting on the subject of chicken-stealing, and who

One of the Toasts Delivered at the Annual Banquet of the Buncombe County Medical Society, at Asheville, Dec. 15, '03, by Martin L. Stevens, M. D.

very discreetly declined saying "he was afraid it might throw a coldness ober de meetin." Rather than risk throwing a coldness over this genial assembly by the mention of our besetting sins I am going to speak of our virtues.

The physician of the health resort practices his profession under circumstances very different from those which attend the practice of medicine in a community made up of permanently established residents, where those whom he treats in the early years of his practice for the various diseases of infancy and childhood he afterward cares for during adolescense, in manhood and womanhood, and their children after them. He thus comes to know not only their diseases but their constitutions, their habits, the details of their lives. He knows not only their present ailments, but also those through which they have passed and those to which they will be liable in the future. They in turn learn to know him thoroughly. They know what he is and what he can do rather than what he seems to be and what ability he professes. Thus it is that a Dr. McLure, gaunt, sunburned, awkwardness personified and whose appearance is more suggestive of the field than the sick room, can by the faithful practice of his profession and the exercise of qualities of character as should be the possession of every physician so grow into the lives and needs and affections of a community as to be literally indispensible to it, and to be in the best meaning of the term "an honor to our profession."

But in some of the resorts in which invalids congregate for the cure of their diseases the qualities of Dr. McLure, which have come to be looked upon by the laity as the qualities of the ideal physician, would meet with scant recognition. The health seeker does not remain long enough for better knowledge to take the place of mistaken first impressions. In consequence the ability to make a good impression has for the profession in these places as high financial value as does the ability to cope and battle with disease. There is in this fact much that tempts the cupidity of physicians who have liberal ideal as to professional honor.

This is well illustrated by facts as narrated to me by one of our friends who has spent some time in that famous resort farther west where mercury and hot baths are held in such high esteem. Before the train reached his destination he was pleasantly accosted by Mr. Drum who is in the employ of Dr. Ducksong and who wanted to secure in advance his patronage for that illustrious worthy. At the hotel the gentlemanly clerk sought early opportunity of trying to earn a commission by directing him to Dr. Tradesman. Young Dr. Hornblower and old Dr. Puffer were in from time to time and lost no opportunity of speaking of what they had done and what they were able to do, and incidentally, of disparaging the work of other physicians. At the home of one of his friends he met Mrs. Gall, the wife of Dr. Gall, who took much pains to let him know that Dr. Fair, under whose care he had placed himself was a man of whom but little was known there, and that everybody who really was anybody took treatment from her husband, Dr. Gall. The Rev. Mr. Cass, whose church he happened to attend, tried to convert him from the error of his way, to give up Dr. Fair and go up to see Dr. Freegiver. The business manager of the Evening Mercury wanted to take him around in person and introduce him to Dr. Publish, who he said was one of the leaders of his profession and had made several very important scientific discoveries, the most valuable of which was that printer's ink if properly exhibited showed remarkable therapeutic results. Capt. Graft of the police force, of whom he made some casual inquiry, volunteered the additional information that Dr. Pull was the best physician in town. Mrs. Boardman and several of her lady friends went into ecstatics over the good qualities and remarkable successes of Dr. Commish. In fact one of them said that she always felt as if she herself were throwing money away when she permitted any other physician to treat a case in her house.

I really believe my informant has been guilty of overdrawing the facts which I have stated, still this at least is true; under cloak and cover of the honorable profession of medicine much is done which were we to lend our sanction to it either as a body or as individuals would give us cause for shame.

From such a consideration it is a relief to turn our thoughts to our own local medical association as here assembled. A medical body that knows and does its duty to the patient, to the profession, to the public and to themselves. I feel that we will be free from any accusation of Phariseeism when we express our thankfulness that "we are not as other men are."

A medical body that feels the force of Bacon's dictum: "Every man is a debtor to his profession." Whose members feel themselves bound by the obligation which the illustrious father of medicine saw fit to impose upon those to whom he taught his art. Who according to their ability and judgment do that which they consider for the benefitof their patients. Who abstain from whatever is deleterious and mischiev-

ous. Who into whatever house they enter go for the benefit of the sick. And who expect to prosper only in proportion as they are faithful to their trust. Who live and work in harmony with the best principles of their profession, and with the mantle of charity cover up the faults of their fellow.

To such a physician—The Buncombe County physician!

Literary Notices.

"A classic is a book that lives because it says rightly what is worth saying. It lives because readers continue to love and admire it. Briefly, it is a book which is too good to die."

No medical book has been styled a classic by competent critics so frequently as Gray's Anatomy. This wonderfully successful book, "the Bible of Medicine," has stood in the fore-front for fifty years and is more popular to-day and more widely used than ever before. Would be competitors only serve to show by comparison its surpassing value.

Abstracts of the Leading Articles of the Month.

Causation of General Paralysis.

Robertson (British Medical Journal, Oct. 24, 1903) believes that general paralysis of the insane is the result of a chronic toxic infection from the respiratory and alimentary tracts, permitted by general and local impairment of the defences against bacteria, and dependent upon the excessive development of various bacterial forms, but especially upon the abundant growth of a diphtheroid bacillus which gives the disease its distinctive character. The evidence in support of this view is as follows: 1. The bone marrow in general paralysis presents severe chronic changes. 2. Rise of temperature, leucocytosis, and digestive disorders all point to a bacterial toxæmia. 3. Severe chronic changes in the alimentary and respiratory tracts of the character of those produced by the prolonged action of bacterial toxins. These consist of proliferative, atrophic, and sclerotic lesions. 4. Direct evidence of general excessive development of saprophytic bacteria. 5. Evidence of the almost constant presence in the respiratory and alimentary tracts of a bacillus, which in its cultural and morphological characters resembles the Klebs-Loffler bacillus. 6. Evidence that this diphtheroid bacillus occasionally takes part in a terminal invasion in cases of general paralysis. 7. A filamentous organism, with its individual segments indistinguishable from some forms of the diphtheroid organisms may with considerable frequency be observed in great numbers in the lymphatics of the alimentary tract in general paralysis. 8. When introduced by way of the alimentary tract in the form of broth cultures, the diphtheroid bacillus isolated from cases of general paralysis is capable of producing in the rat a series of morbid phenomena which especially affect the nervous system, and which, when once established, may go on progressively until death results, even though feeding with the cultures is stopped, and the associated changes in the central nervous system have a distinct resemblance to those found in dementia paralytica.

Raynaud's Disease.

According to the Edinburgh Medical Journal, Barber has reported a case which he assigns to the local asphyxia of Raynaud, and which was characterized by unusual severity and duration.

Mrs. X., *ætat* 25, in July, 1899, bore her first child. Menstruation commenced at 14; when 19 she began to suffer from peculiar attacks always during a period, but not during every one. She felt faint and numb; her lips became black—her face, ears, hands and feet absolutely cold and blue. In twelve to twenty-four hours these symptoms disappeared. She also frequently noticed red patches appearing on her legs. Married in 1898 when 24, despite warning as to her risk if she became pregnant; but she became so, as noted above. At once her health improved; the cyanotic attacks vanished. In April of this year she, however, developed symptoms which suggested rheumatic fever. The temperature was only 100 degrees, the pulse 86 and soft, heart's sounds normal, slight hæmic bruit, lungs healthy, face somewhat cyanosed, toe and finger nails rather blue, but painless and warm; and some dyspnœa on exertion. The limbs and joints were here and there painful and swollen. The affected parts were wrapped in gamgee. Urgently recalled a few hours after, he found the patient seemingly in the final stage of asphyxia. Face and neck ashy grey-blue; lips, ears, nose and tongue dark bilberry-juice color; fingers, hands and feet blue, but not particularly cold to touch. Despite appearances, she was lying quite quietly in bed; no dyspnœa, pulse 100, of good volume; no loss of consciousness, only semi-dazed, and sinking feelings. She had previously vomited everything given her, so only a small quantity of strychnine in soda water was administered, and she was left quietly at rest. Next morning symptoms had al-

most completely disappeared; but on getting up out of bed later on in the day against orders, another similar attack occurred, less severe than the first. Since recovery from the second, she had not experienced any further attacks of this nature up to date of the report. There never was any hæmoglobinuria. The attack particularly described closely followed a menstrual period more profuse than usual, much railway traveling and excitement in London, a tooth extracted two days beforehand under gas, etc.

Relation of Certain Adenocarcinomata to Atrophic Scirrhosis of the Breast.

Stewart (American Journal of the Medical Sciences, September, 1903) discusses the above under three headings, in the form of queries: 1. Is there an atrophic scirrhus of the breast? 2. Is operation to be advised against in this form of tumor? 3. Is it possible to distinguish these tumors from other malignant tumors of the breast; morphologically and do their microscopic characteristics explain their slighter malignancy?

Scirrhus cancer is met chiefly in advanced years and is comparatively benign. Dr. Stewart quotes Gross, Buttin and Shields for description and gives several illustrations of his own. Butin advises against removal. Parks, Wharton and Curtis, American Text-Book and International Text-Book of Surgery copy Gross' description but they do not lay stress on its chronic course as contraindication to operation. Gross says the course is often chronic but visceral metastasis is frequent. Bryant says it affects old persons, and metastasis was rarely observed by him. The writer says that operation frequently stirs up a quiescent tumor to a rapidly malignant progress, and has been unable to find any sections of atrophic scirrhus which substantiates the statement that the anatomic picture of scirrhus is due to a fatty degeneration of the cells with contraction of the stroma. He gives illustrations of three atrophic cancers, which are true edenocarcinomata, very chronic in their course, the edges of which simulated true scirrhus, and asks whether the adenomatous element does not justify their greater benignancy? He says: 1. The term atrophic scirrhus is worthy of retention as describing a clinical entity. 2. It is extremely doubtful whether such cases are benefitted by operation. 3. Certain adenocarcinomata of the breast have the clinical history of the atrophic scirrhus. 4. It seems probable that if more of these tumors were studied histologically they might prove to have an adenomatous element to justify their comparative benignancy.

Three Cases of Erythema Exsudativum Multiforme.

Crawford (The London Medical Lancet, Nov. 19, 1903) reports three cases. In the first case there were—(1) symmetrical outbreaks of purpura; (2) articular and periarticular effusions—sometimes symmetrical and sometimes not; (3) attacks of abdominal pain usually associated with the other symptoms; (4) hemorrhage from the gums and the kidneys; and (5) casual disturbance of temperance; but the notable feature of the case is that in successive attacks not all the symptoms were present. In fact, if we were to adopt the current nomenclature we should have to say that this patient had simple purpura, Henoch's purpura, and arthritic purpura successively, though it is obvious that he had but one disease variously manifested. A tendency to recurrence is seen in this patient's illness.

To summarize the second case there were: (1) Eruptions of purpura, symmetrically placed. (2) Hemorrhagic effusions: (a) about the joints, (b) in connection with bones and seeming subperiosteal, and (c) in the lax subcutaneous tissues. These effusions showed a tendency to be symmetrical. (3) Attacks of abdominal pain, usually contemporaneous either with the hemorrhagic effusions or with the outcrops of purpura and therefore probably referable to like cases—i. e., extravasation. (4) Slight disturbance of temperature. This did not appear to be an integral part of the disease but rather a casual complication, depending on such causes as pain, sleeplessness, and so on. The changes in the blood were neither constant nor characteristic, but the red cells and hemoglobin were relatively high. No drug that was employed had any obvious effect on the course of the disease.

To summarize the third case there were: (1) Symmetrical outbreaks of purpura; (2) symmetrical effusions into joints; (3) attacks of abdominal pain associated with the other symptoms; (4) hemorrhages from the lungs, kidneys, stomach and bowels; and (5) an irregular febrile temperature not waxing and waning with the other symptoms. A tendency to relapse rather than to recurrence is shown in the course of this case.

Formaldehyde Treatment of Phthisis.

Chowry-Muthu (British Medical Journal Oct. 24, 1903) says that formic aldehyde is of great value in the treatment of pulmonary tuberculosis. There are three different ways of administration: I. *Inhalation, by means of an oronasal inhaler or by vaporization.* To be efficacious the inhaler must cover the nose and must be continuously worn for as many hours as possible.

Oronasal inhalation is simple, protective, and can be carried out at home. The inhalant recommended is as follows: Formalin (40 per cent.), 1 part; chloroform 1 part; rectified spirits 2 parts. A few drops of ammonia are added to neutralize the pungency of the vapor. II. *Intravenous injection method.* The author has treated twenty-five cases of phthisis by the intravenous injection of formalin. He commences with 5 c. c. of a strength of 1 in 2,000, increasing to 1 in 1,000. Numbness of the hands and a slight rise in temperature sometimes result, but no permanent ill effects. Many of the patients so treated improved considerably, but in others there was no change. As all of them were having the open air treatment, the formalin may have had no effect. III. *Electrical method.* In this method advantage is taken of the process of electrical osmosis or cataphoresis for the introduction of formaldehyde through the skin. The author has had no personal experience with it. In conclusion he thinks that formaldehyde is of value in those cases where the open air treatment cannot be carried out, the best mode of administration being by means of inhalation.

Prostatectomy and Galvano-caustic Prostatotomy (Bottini's Operation): Their Present Status in Radical Treatment of the Hypertrophied Prostate Gland.

W. Meyer (Medical Record) says:

1. The operations making a direct attack upon the enlarged prostate gland are preferable to those aiming to exert an indirect influence.

2. We have *two* useful procedures for the direct treatment of the enlarged prostate gland, *i. e.*, prostatectomy and galvano-caustic prostatotomy (Bottini's operation).

3. In selecting the method indicated in the given case we must individualize and be guided by anatomic, pathologic, and social conditions.

4. Prostatectomy is the most radical and most surgical procedure; it should be the operation of choice, whenever promising success.

5. Perineal prostatectomy offers advantages over the suprapubic method, since it enables the operator to do the operation under the guidance of his eyes.

6. Debilitated patients who seem unfit subjects for the more radical operation, should not be at once relegated to catheter life, nor should prostatectomy be performin order "to let them down easy"; they should be advised to have Bottini's operation done if possible.

7. Surgeons should familiarize themselves with both methods, in order to be in a position to do justice to their patients.

8. It is the duty of those refusing to do Bottini's operation under any circumstances, to nevertheless, advise the latter in cases in which the patient asks for more radical relief and the operation with the knife seems contraindicated.

9. Further carefully compiled statistics as to the late results of both operative procedures—preferably in the hands of one man—are desirable in that they will increase our knowledge with reference to the selection of the proper method in the individual case.

Why Gynecological Operations Fail.

Sigmund Goldberg (Buffalo Medical Journal) says:

1. That all so-called minor gynecological operations, to be of any permanent benefit, must be performed within at least one year from time of the infliction of the original lesion.

2. That after the passage of about a year, either Alexander's operation, trachelorrhaphy or curettage, or all combined, will be insufficient to restore patient to perfect health.

3. The reason for such failure in the great majority of such cases, after one year, is because the adnexa are sure to be involved.

4. The best course will be to do some operative procedure intra-abdominally, and not by the internal inguinal ring puncture of Goldspohn, but by free incision, so that the exact condition can be ascertained and properly treated, and this I hold to be proper rather than to depend upon the uncertainty of physical palpation.

Adrenalin and Its Uses in General Surgery.

Under the above title an article appears in the October issue of the Indian Medical Gazette, from the pen of Harry Gidney, F. R. C. S. (Edin,), D. P. H. (Camb.), etc. The author finds that "the clinic usefulness of Adrenalin is very great and extensive, and owing to its power of rapidly and effectively producing vaso-motor constriction it is adapted to the treatment of all inflammatory conditions. The drug is also of extreme value in arresting hemorrhage during all surgical operations. It is indicated whenever and wherever any local hyperæmia exists, more especially in inflammations of mucous surfaces such as those of the eye, throat, larynx, pharynx, urethra, bladder, nose, rectum, vagina, uterus, stomach, &c. It is used not only to stay hemorrhage when it exists, but also as a preventive or controlling remedy, given either internally or externally prior to an operation, so as to lessen the amount of bleeding during the performance of that

operation. It is a non-irritant to mucous membrane unless when used too frequently and in excess.

"On reading the literature on the subject," says the writer, "I find that Adrenalin is admitted to be the most powerful and rapid cardiac stimulant and tonic we have, being chiefly used in cardiac affections, hæmatemesis, hemoptysis, hemophilia, hematuria, menorrhagia, post-partum hemorrhage, purpura, scurvy, &c. It is said to be the most rapid restorative in chloroform and other forms of anesthetic syncope, and in such cases it is advisable to administer it intravenously."

The author reports the results of several operations, major and minor, in which Adrenalin was employed. The first case was one of fracture of the vertex of the skull. As one of the larger branches of the middle meningeal artery had been torn, there was profuse dural hemorrhage and capillary oozing which were controlled by the use of the 1-1000 solution. In the second case, one of hemorrhoids, profuse bleed- was checked by the rectal insertion of a plug of cotton well soaked with Adrenalin Chloride Solution.

The third case was one of skin grafting, in which the author tried pressure to stop the capillary bleeding. As the procedure was somewhat tedious, he applied Adrenalin Chloride Solution with almost immediate cessation of all oozing, and what is usually a lengthy and sanguinary operation was converted into a short and comparatively bloodless one.

The fourth case, one of hemorrhage after the extraction of teeth, and the fifth, which appears to embrace the author's experience in a number of cases of epistaxis, afforded additional opportunity to test the hemostatic effect of Adrenalin.

In case VI a post partum hemorrhage was checked by swabbing the uterine cavity with Adrenalin Solution, while the same happy result was obtained in a case of secondary hemorrhage following an operation for the relief of a mammary abscess.

The author has found that the instillation of a 1-5000 to 1-2000 solution of this drug reduces the inflammation and considerably cuts short the process of conjunctivitis. He usually applies it (diluted) over the inflamed parts by means of a soft camel's hair brush. He always uses the preparation containing Chloretone, which has a decided local anesthetic action relieving much of the photophobia and pain. He is fully convinced of the power of Adrenalin to arrest or lessen the bleeding that arises from the cut ends of the iris after iridectomy. He speaks highly of its efficacy in chemosis, cataract operations, evisceration of the eyeball, operations for ectropion, symblepharon and trachomatous pannus.

The author concludes that in all cases of minor surgery in which it is desired to arrest bleeding from any cut or exposed surface we have in Adrenalin a most useful, powerful and rapid drug—one that is non-poisonous, non-irritant and non-accummulative, especially in operations upon the conjunctiva and eyelids.

A Convenient Modification of Tests for Hydrochloric Acid in Gastric Contents.

Charles Sumner Fischer, in American Journal of Medical Sciences, October, 1903, describes a method whereby to make a rapid estimate of the combined and free hydrochloric acid in the same 5 c. c. of gastric contents.

The operation, which requires no more than ten minutes, is briefly as follows:

1. Five c. c. of filtered gastric contents are measured into a small dry beaker and the free hydrochloric acid estimated with dimethyl-amido-azobenzol.

2. The total acidity is next determined in the usual way by phenolphthalein and the decinormal sodium hydrate solution.

3. The results obtained being noted, a quantity of decinormal hydrochloric acid solution equal to the quantity of sodium hydrate solution already employed, is added, thus restoring the originrl total acidity of the gastric contents.

4. Add of a 4 per cent neutral solution of calcium phospho-tungstate a sufficient quantity to bring the whole up to 30 c. c. The mixture is thoroughly agitated and allowed to stand three to four minutes.

5. In order to decolorize the same, a small quantity of chemically pure animal charcoal is thoroughly stirred into it and the whole filtered through a dry filter into a dry beaker.

6. Of this filtrate 15 c. c. are measured into a dry beaker, and the total acidity is determined with a 1 per cent alcoholic solution of rosolic acid. Six drops of this added to the 15 c. c. employed will give a yellow clear fluid which turns to red when the acid is neutralized with the decinormal sodium hydrate solution. The filtration should be carried out rapidly and to an end-reaction over a white underlying surface. If any uncertainty as to the end-reaction exists it is safer to add a few drops more of the sodium hydrate solution, as any error will be largely in favor of finding the total acidity too low.

The difference between this last total acidity and that obtained originally with phenolphthalein will represent the quantity combined hydrochloric acid in the 5 c. c. of gastric contents employed.

Membranous Group and Diphtheria.

Ellegood (International Medical Magazine) gives the following conclusions:

1. That there is no such independent disease as true croup.

2. That pseudomembranous inflammation of the croupous or diphtheretic type, whether or not attended with or followed by paralytic sequelæ, is always caused by the Klebs-Loeffler bacillus in some phase of its existence.

3. That the bacillus is a facultative saprophyte; that the virulent and non-virulent types are of the same genus of micro-organisms, and the non-virulent type is the same organism undergoing a kind of saprophytic state of existence which interpolated in the life history of the parasitic bacillus.

4. That the degree of toxicity manifested depends upon certain unknown vital conditions of that micro-organism, upon the anatomical character of the part attacked, upon the degree of immunity possessed by the blood and tissue of the body on which it finds lodgment, and upon the effect on the specific germ and its toxins of associated bacteria and their products.

5. That isolated cases of diphtheria, or those which do not give rise to infection, are as frequent as the cases of membranous inflammation of the larynx, in which the membrane is confined to that organ without giving rise to infection or the constitutional symptoms of diphtheria.

6. That inability to find the specific bacillus in a small proportion of cases is due to faulty technique, the late stage in the disease at which the bacteriologic examination was made, unknown morphological conditions of the micro-organism, to the development of peculiar or unusual relation to staining reagents, to autolysis, or to the action of other bacteria.

7. The antitoxin when administered early in uncomplicated cases is an almost unfailing remedy, and is useful in all cases.

The virulence of the bacillus being determined by its environment, or dependent upon the fulfilment of certain conditions, should be made the subject of careful investigation. Convalescents from diphtheria should be quarantined until they are no longer bearers of the bacillus, and repeated culture tests should be made to determine the period of their disappearance. Thorough disinfection of clothing, etc., cannot be considered accomplished so long as virulent bacilli can be found in the patient's throat. The bacilli can frequently be found in healthy persons recently exposed by reason of attendance upon a diphtheritic case, and these bacilli are probably of the same virulence as those in the diseased individual. A healthy person who harbors diphtheria bacilli as a result of recent exposure is therefore a source of danger, and ought, theoretically, to be isolated until free from the germ. For economic reasons such a course is not always practicable. On account of the large proportion of persons who escape diphtheria in an ordinary epidemic of the disease, the cost of antitoxin, the popular dread of its use, and the short period of immunity afforded by it (about three weeks), it is doubtful whether this remedy will ever be generally made use of as an immunizing agent. In special cases, in malignant epidemics, and in hospitals, this practice may be found of great advantage.

Sufficient progress has not been made in the development of coccal antitoxins to make their use of practical value. Success in this line can be arrived at only when antiserum for the specific coccus found to predominate in a given case can be obtained.

Thrombosis of the Femoral Veins Following Aseptic Laparotomy.

Secord (Montreal Medical Journal):

The patient was operated upon for a double oblique inguinal hernia. There were no discoverable cardiac or renal lesions, and the patient was in perfect health. The double Bassini operation with McEwen's treatment of the sac was done on both sides. The operation on the left side was more difficult. The patient was in the horizontal position, and a strict aseptic technique was followed. A moderately firm double spica bandage was applied, but as this caused irritation it was replaced after the first day with a many-tailed bandage, which was later changed to adhesive strips. There was early convalescence, the temperature not going above 100 degrees nor the pulse above 90. The wound was not healed until the tenth day, when the stitches were removed, primary union having taken place. On the twelfth and thirteenth days following the operation shooting pains occurred in the left groin, popliteal space and calf of the leg. On the fourteenth day an indurated cord could be made out occupying the position of the long saphenous vein. A diagnosis of venous thrombosis was made, the leg elevated, and moist heat applied. The temperature rose on the second day after the complication to 101 deg. F., and remained at this figure for nearly a week. The temperature did not become normal until the twenty-third day, and considerable pain and stiffness persisted in the leg for some weeks longer. During the height of the process there was considerable edema in Scarpa's triangle, but at no time was there any at the ankle.

The condition was an extensive venous thrombosis involving the left saphenous and femoral veins following two weeks after an aseptic operation with typically aseptic wound healing. It occurred on the left side, where the less extensive operation had been done, where there was less handling of the parts, and less hemorrhage, but where a truss had been worn for twelve years.

An examination of the literature on this topic shows that the prevailing opinion is one that regards it as an infection. Recently cases of appendicities have been reported in which left femoral thrombosis occurred not connected with the operation, but with the conditions calling for the operation. In two of these cases the only operative measures were the evacuation of abscesses.

The writer says that no one etiological factor is responsible for the occurrence of this complication. Infection does not seem to play an important part. It is possible that a sudden decrease of pressure brought about by the removal of a large tumor may have a causative influence. Preventive treatment should consist in avoiding unnecessary traumatism, hemorrhage, or sudden decrease of tension. The latter is brought about by having the area of the wound well supported by a firmly applied dressing. There seems to be little or no mortality in the reported cases, but fatal pulmonary embolism may follow the development of the complication.

Fixation of the Prolapsed Kidney.

Goelet (Pedatrics, October, 1903) believes that prolapse of the kidney to the third degree or beyond, that is, when it has descended below the border of the last rib in front and its upper pole can be palpated when the patient is in the erect position, may be considered sufficient indication for operation because:

1. Prolapse of the organ to that degree permits abnormal mobility, and is not conducive to health or comfort, though it may not produce intolerable symptoms at first.

2. The position of the kidney when the patient is in a sitting or the erect position interferes with the draining off of the excreted urine, either because of flexure of the ureter or compression of the ureter by the kidney which overlaps it and presses backward on it when the abdomen is constricted by the corsets or clothing.

3. Its circulation and function are seriously impaired by the displacement, and inflammation of its structure frequently results.

4. The kidney when prolapsed to this extent overlaps the ovarian vein as it ascends along the spine, compressing it and retarding the return circulation from the pelvis, thus being a frequent cause of pelvic disease.

The author passes his sutures beneath the fibrous capsule, which is left intact. He has done 159 nephropexies without a failure or a death.

Diagnosis of Carcinoma of the Stomach.

In seeking for some means of early diagnosis of cancer of the stomach, H. Solomon (Deut. med. Woch.) found that not much could be gained by estimating the number of micro-organisms in the stomach, nor did he have any success with serum diagnosis. He attempted to obtain a serum which would act specifically with the serum of cancer patients, but without success. The supposition that wherever there is an ulcerating surface a certain amount of serum will be exuded, led him to see if the amount of albumen gained from the stomach would lead to better results. He proceeded as follows: The patient received milk and like fluid diet in the morning, and at about 2 o'clock a fluid meal, which was free from albumen, such as bouillon, tea, coffee, or wine. The stomach was washed out at 9 p. m. with a large quantity of water, and was kept without any intake overnight. In the morning the stomach was washed out several times with 400 c.cm of physiological saline fluid. The returned fluid was tested for albumen by Esbach's test, and the quantity of nitrogen was estimated by Kjeldahl's method. In the majority of cases of nervous dyspepsia, chronic catarrh of the stomach, gastroptosis, etc., there was either no albumen at all, or at most a slight clouding of the fluid. The nitrogen varied between 0 mgr. and 16 mgr. in 100 c.cm. of fluid. The same results were obtained in cases of chronic ulceration of the stomach, but for obvious reasons he did not test cases of painful gastric ulcer. In all cases of cancer of the stomach which he examined, the amount of albumen varied between 1-16 and $\frac{1}{2}$ per cent. The nitrogen value was corresponding, and lay between 10 mgr. and 70 mgr. per 100 c.cm. of fluid. He states that according to his present experience, when there is a doubt as to the nature of a chronic disease of the stomach, carcinoma is probable if the washing out fluid shows a flocculent precipitate with Esbach, or when the nitrogen value exceeds 20 mgr. per 100 c.cm of fluid. It is, however, he says, probable that an intense catarrh of the stomach may give the same results as carcinoma, but he has not yet come across such a case. He gives some details of cases in which his method was capable of correcting a wrong diagnosis.—Indian Medical Record, Nov. 4th, 1903.

Calomel in Tuberculosis.

In the Wiener medicinische Wochenschrift, Dr. Martell speaks highly of the value of calomel in the treatment of incipient tuberculosis. Treatment against a specific microbe, with its specific localization, must be specific and antitoxic, and the elective action of mercury toward the glands, its incitant action on the tissue cells, and its power of combining with metabolic toxic products, qualify it for this role. Mercury is no specific against tuberculosis, but it stimulates the biochemism of the infected territories to a higher grade of activity. The fittest preparation is calomel. The indications are the removal of the vasomotor paralysis, the fixing of the poisonous metabolic products, and the fluidification and ultimately the elimination of the morbid substances. After the administration of calomel we see from day to day a progressive increase in the secretion from the lungs and the intestine. At the beginning the dose should be 0.01 (gr. 1-6), increased to three powders each of 0.02 (gr. $\frac{1}{3}$), or even more should constipation be present, returning to two or three powders when regularity in defæcation is established. With the internal administration, inunctions are to be begun, each inunction being preceded by a washing of the skin with tincture of green soap. The mouth must of course be carefully washed, and upon the least painfulness washed with corrosive sublimate 0.02, alcohol 50, aquæ melissæ 500. From about the fifth day of treatment the tuberculous matters appear in the stools in the form of slimy, fibrinous or purulent, yeasty, and foul-smelling masses, whose excretion in women is accompanied by a fœtid, yellow, purulent discharge from the genitals; necessitating rest in bed, or at least absolute rest from exertion. Children with a strong hereditary taint, especially if the brothers and sisters have been tuberculous, should be subjected to the calomel treatment (0.003, or gr. 1-20 three times a day) by way of precaution; the treatment being continued until the dejections are absolutely free from foul odor and mucopurulent admixture. Children bear the treatment well, and the author believes that he has saved many by it from certain death.—Indian Medical Record, Nov. 4th, 1903.

New Method of Reaching a Hepatic Abscess.

Mendes (Rev. de Chir.) describes a new procedure for exposing a subdiaphragmatic or postero-superior abscess of the liver, by which it is possible to reach and evacuate the cavity without free opening of the abdomen and disturbance of the abdominal contents, and also without laying open the right pleural sac. In a case in which this method was applied with very satisfactory results, the author made an incision about five inches in length over the ninth rib, extending outwards from the attachment of this bone to its costal cartilage. From each extremity of this incision a short incision was carried vertically upwards, a rectangular flap being thus formed which, when disseted from the subjacent parts, left the seventh, eighth and ninth ribs exposed. Portions of the two lower ribs, 4 inches of the ninth, and a little less of the eighth, were then carefully resected. The parietal pleura was next detached by blunt dissection from the posterior surfaces of the ribs below the wound as far as the reflexion of this membrane on to the diaphragm, and after the pleural *cul-de-sac* had been raised and pushed inwards, an incision about one inch in extent was made through this muscle into the cavity of the abscess. This, which is designated the parapleural transdiaphragmatic method, has, it is stated, the advantages of permitting free and perfect drainage, and of avoiding pneumothorax and pleural infection. If there should be an absence of adhesions between the under surface of the diaphragm and the liver, or any doubt as to the extent of any adhesions it would be advisable, the author holds, to suture the hepatic peritoneum to the margins of the incision in the muscle.—Indian Medical Record, Nov. 4th, 1903.

Therapeutic Uses of the X-Ray.

Dunn (Int. Journal of Surgery) says: "There is no doubt that x-rays will destroy the hair, sabaceous and sweat follicles when properly applied, permitting the permanent removal of the hair or simply temporary removal." Angioma can be removed by x-ray, but it is questionable if the resulting scar is not worse than the original mark. Treatment of skin diseases should be given with a soft tube. The follicles are affected after eighteen or twenty exposures, and the reaction will continue two or three weeks. When it begins to subside treatment should be given two or three times per week for six or eight weeks, after which no recurrence need be feared. No scar results and frequently the complexion is improved.

A number of cases are reported, including hyperhidrosis, eczema, lupus, epithelioma, tubercular glands, carcinoma of the stomach, carcinoma of the bladder and uterus, and sarcoma involving the base of the bladder, in all of which the results were extremely satisfactory. In one case of carcinoma of the breast x-ray treatment was given until softening had well begun. After the reaction had disappeared the carcinoma was removed with the knife. Forty-

eight hours afterward sloughing appeared the entire length of the incision from one to two inches wide. The wound is now healing by granulation. Probably the integument is so devitalized by such x-ray exposures that plastic work is not advisable.

A case of psuedo leukemia (Hodgkin's disease) was exposed fifteen days before the reaction was obtained. After ten days more he was much stronger and had gained sixteen pounds. He was again given fifteen exposures then allowed to go home for eight days. Eight more exposures followed. The glands in the neck entirely disappeared and after one year there was no recurrence.

Laryngeal Paralysis and Tabes Dorsalis.

Lockard (Annals of Otology, Rhinology and Laryngol) arrives at the following conclusions concerning laryngeal paralysis as a primary symptom of tabes dorsalis:

"1. Laryngeal paralysis, as a complication of tabes, is present in about 15 per cent of all cases.

"2. Paralysis may precede all other symptoms by from six months to three years.

"3. The primary paralysis is always limited to the posticus muscle and is usually, if not invariably, unilateral.

"4. The process remains limited to that muscle for years, or during the life of the individual.

"5. The primary paralysis is fairly common; the true percentage will never be ascertained owing to the long absence of subjective symptoms.

"6. When the cause of an abductor paralysis cannot be accurately ascertained, locomotor ataxia must be considered.

"7. That it is frequently of great diagnostic importance, in that it will draw attention to the general condition and thus sometimes uncover an unsuspected ataxia.

"8. In all cases where the diagnosis of tabes is doubtful, a laryngeal examination should be made whether or not there be subjective laryngeal symptoms."

The Lymphatic System and the Tonsils.

Swain (The American Journal of the Medical Sciences):

A case of acute inflammation of the pharynx tonsil in a child is detailed, as typical of certain masked cases of this kind that escape intelligent consideration. The child had high fever, headache, and slight snuffles; no sore throat. Careful physical examination failed to reveal any trouble, except a red, slightly spotted and moderately enlarged third tonsil. The fever remained, with morning remissions for six days, and the cervical lymph nodes became slightly enlarged and tender. General malaise and slight febrile rise at night persisted for some weeks, and it took the child some months to return to his former vigorous condition. The case is evidently one of distinct interference with, or disturbance of, the function of the lymphatic system. The practical deduction is to operate very thoroughly in removing nasopharyngeal adenoids, and to keep the patient under observation afterward.

Coagulation of Infantile Blood.

Borland (Scottish Medical and Surgical Journal, has made an extended series of observations of infant's with the object of showing that, in the early hours of life, there is a delay in the coagulability of the blood, as compared with later days. His work shows that there is an unmistakable and decided increase of coagulability from the first day of life onward. There is not a uniform rate of coagulation for children of the same age. The writer thinks that the factors in increasing the coagulability of the blood are the large excess of CO_2 and the concentration of the blood, accompanied by vigorous respiration. The weight and sex of the child have no influence on coagulation.

High Frequency Currents for Constipation

Dieffenbach (North American Journal Homeopathy) treats the patient with a glass vacuum electrode for the rectum, extending past the sphincter. The electrode is then connected with a hyperstatic machine. Treatment is given for fifteen minutes daily at first; later tri-weekly or bi-weekly. Ordinary medical treatment was given as indicated except in the first case, in which no medicine whatever was employed, and which was cured in ten treatments. This case was of thirty years' standing, with history of constant drugging. The grooved electrode is preferred. Hemorrhoids if present become reduced in size and gradually disappear.

He tabulates the various agents entering into the treatment as follows:

1. Suggestion: While the current is passing and the patient is resting quietly the operator gives instruction regarding regularity of habits, drinking abundantly of water, use of laxative fruits, physical exercise, bath and other points; and the daily repetition of these suggestions create firmly fixed thoughts in the patient which are not easily forgotten.

2. Stimulatiou of the regular circulation.

3. Dilation of the anus, rectum and the sphincters. This process is gradual and absolutely painless, as the current is analgesic; over-dilation must be avoided.

4. Removal of the primary cause; hep-

atic disturbances, hemorrhoids, atony of the intestines, etc.

5. Regulation of habits.

One hundred per cent of cures is claimed. Treatment must not be given too near the menstrual period, as the stimulation will bring on premature flow. This treatment is therefore valuable in delayed menstruation.

Sterilized Milk, Pasteurized Milk, or Clean Milk.

Brown (Archives of Pediatrics) says that sterilization at 112 deg. F. is of great value, especially in cities and to the poor who lack intelligence, because it may be performed by any one, and with simple or no apparatus. Pasteurization at a temperature of 140 deg. to 158 deg. F. in closed vessels for fifteen minutes is much to be preferred, as the milk is little changed in its taste or chemical properties from raw milk, and this temperature is sufficient to kill the pathogenic organisms and lactic-acid-producing bacteria. But we must agree with Holt when he says that all heating of milk sufficient to kill bacteria does impair to some extent its nutritive properties, and to a degree proportionate to the height of temperature employed, and the length of time it is continued. When obtainable, fresh, pure, clean milk used raw is much to be preferred. It is now supplied to many of the large cities. There is a strong and rising demand among the laity for such milk. It can be provided to all cities and towns of even moderate size if the profession will put forth proper efforts to procure it. Under a general law all milk dealers should be licensed by the city or town in which they sell milk. Such license should give the health officer power to enter upon and inspect premises upon which the milk is produced, at any time he sees fit; and it should also carry with it a statement on the part of the dealer that all cows producing milk which he sells have been tested for and found free from tuberculosis.

Chronic Inversion of the Uterus.

According to Peterson (American Gyn.) treatment must be directed toward increasing the diameter of the inversion ring, either by pressure exerted from within outward or through incision of the pillars of the ring. The following operation is advocated by the author as meeting the requirements of the condition: The inverted fundus is grasped with a volsella and pulled forcibly outward and downward. Another volsella catches the anterior vaginal mucosa in the median line just above the anterior lip of the cup and pulls it sharply upward. Through the vaginal mucosa thus rendered tense is made a transverse incision some $2\frac{1}{2}$ inches in length. In order to avoid opening the bladder, this incision is made as close to the cervix as possible. The vesico-uterine pouch is opened, the cervix exposed and divided between two volsella. This incision is carried upward in the anterior median line of the uterus within one-third of an inch of the fundus. The inversion is now reduced easily, the fundus going upward and each half of the divided cervix being carried through half the arc of a circle and finally meeting so that the two halves form a complete cervix situated downward, not upward. A wedge-shape piece of the bulging uterine wall on either side of the incision is removed, as is suggested by Taylor. This is done to enable the retracted peritoneal edges to come together. The uterine incision is now closed by continuous catgut sutures. The needle was passed from the peritoneal surface down to, but not through, the uterine mucosa. A catgut suture is passed around each round ligament close to the uterus and each end passed through the anterior vaginal wall and tied after the fundus is returned into the pelvic cavity. This brings the line of incision in the anterior uterine wall up against the bladder peritoneum, at the same time giving support to the fundus, which has long been prolapsed. The various vaginal operations which have been advocated for the same condition, the author divides into four groups: (1) Partial posterior colpohysterotomy (Kustners' operation), which gave four successes in six operations (Kustner), Perlis (Von Jordon) and two failures (Salin Weber); (2) complete posterior colpohysterotomy (Piccoli's operation); (3) partial anterior colpohysterotomy (Kehrer's); (4) complete anterior colpohysterotomy (Spinelli). The vaginal methods collectively show 26 cases with only three failures and no deaths, or 88 per cent successful.

New Treatment of Cicatrices.

Varney (International Journal of Surgery) states that mild applications of the x-ray stimulate cellular action almost exclusively. Elastic tissue, muscles and cartilages are affected only when the rays are used to an intense degree. Degenerative changes of the cells take place with inflammatory symptoms which increase the vitality and reproductive powers of the least differentiated tissues and produce degeneration in the more highly specialized structures such as hair and nails. The epithelial cells show the most energetic reaction both in diseased and normal tissues. Application of the rays after small pox before the inflammation in the skin has subsided thus

resulting in filling up the pit of the scar. The irridations must begin very mildly, increasing in strength daily until inflammatory reaction appears. Treatment is then diminished until the pits are filled above the surrounding skin. No bad results follow except loss of hair which afterward returns. In the case of old scars the tissues are first scarified and then the rays applied.

The Treatment of Clubfoot Under Three Years.

R. Sands (American Journal of Obstetrics, August, 1903) mentions the following method, which he first advocated in a paper read before the Orthopedic Section of the New York Academy of Medicine in 1893: First apply a piece of felt to both the inner and outer borders of the foot, extending it over the malleoli. This is done as an extra precaution for the protection of the bony prominences, being needed especially over the metacarpophalangeal joint of the great toe, and over the cuboid bone—this being usually very prominent. Then apply at least two thicknesses of canton flannel to the foot and leg, extending it to the tuberosity of the tibia. Now, having the foot and leg well protected, the plaster is applied also up to the tuberosity of the tibia. This will prevent the leg from moving in the plaster cast, and give a better leverage when the twisting process is begun. Care should be had to have the toes held in their natural relation to each other. The plaster should extend well over the toes, but their ends should be exposed. While waiting for the plaster to set, grasp the leg with one hand, holding it firmly on the table, and with the other hand press on the plantor surface with a board; this serves the purpose of overcoming some of the deformity, and gives a flat surface on which the child can walk better. When ready to begin the redressment, cut out a wedge-shaped piece of plaster on the outer border of the foot over the most prominent part of the deformity, for here the greatest pressure is needed; then connect the upper and lower angles of this cut by cutting a line through the plaster entirely around the foot. Care should be taken not to allow this cut around the foot to be near enough to the heel to allow the front part of the foot to move in the dressing when the foot is twisted, for then the object in view would be defeated. The plaster cast is now in two pieces, each fixed to the foot. By grasping the leg with one hand and the foot with the other, it takes but little force with this leverage to bring the opposite ends of the wedge-shaped cut into apposition, which corrects a certain amount of the deformity. While an assistant holds the parts in a position of their new relation to one another, they are fixed there by a wet plaster bandage applied around the foot and ankle in a figure of eight, care being taken to fill in the gap made by the linear incision on the inner side of the foot. This third plaster bandage, being applied over the dry cast, can be easily peeled off at the next sitting; then make the wedge larger and repeat the dressing as before. This can be repeated three or four times when it will become necessary to apply a new bandage. The number of sittings will have to be regulated by circumstances, pain, etc. The twisting should be done about three times a week, until the foot is in a normal position, then once a week until the desired over-correction is obtained; then the permanent dressing is applied. The condition of varus should first be corrected, and then the equinus should be overcome by making the wedge incision over the dorsum of the foot, and proceeding as before. As a rule, it might be said that the foot should be kept in a prominent dressing for at least six months after the child begins to walk. After the dressing is left off a close watch should be kept on the patient, and just as soon as it is discovered that there is a tendency to relapse, the foot should at once be put up in plaster again, or, in whatever retentive apparatus may be selected.

Decapsulation of the Kidney.

Tyson and Frazer (Univ. Penn. Medical Bulletin, September, 1903) discusses this subject and also report a case in which it was tried with favorable results. The patient, a girl of nine years, presented evidences of a type of post-scarlatinal nephritis, which persisted for five years with acute exacerbations. Her condition finally grew desperate, and as no relief could be secured from any further medical treatment, decapsulation was done first of one kidney and then the other according to the method indicated by Edebohls. After the first operation the excretion of urine was immediately increased from 21 to 63 ounces on the fifth day. On the tenth day the ascites and anasarca had entirely disappeared and the albumin diminished from one-half to one-tenth in volume. Two months later the second operation was done with similar effects. After the patient was allowed to get up, the albumin again increased in amount, but the urine was secreted freely and the casts were mainly hyaline. Her general condition continued good to the time of the report. The urinary conditions prevent the claim being made for a cure, but undoubtedly the patient's life was saved by the operative treatment. In discussing the ultimate results, the authors,

from the knowledge of the histological changes that take place in the tissues that have been subjected to such manipulations as are prescribed and from the results of the experimental work done by Johnson on dogs, where it was shown that decapsulation does not produce any increased vascularity in the perirenal tissue, conclude that in the course of time, through the organization of the granulation tissue into connective tissue, the kidney will be again surrounded by a fibrous capsule and one probably several times thicker than the original one. The operation, therefore, seems irrational, although it must be admitted that the clinical results are favorable and cannot be disregarded. They would perform the operation in a patient in whom all other attempts at alleviating the condition had failed, and death was imminent, provided it was reasonable to assume that the patient would survive the immediate effects of the operation.

Pathology of Small-Pox.

Stokes (Johns Hopkins Hospital Bulletin) says the early skin lesions indicate that the primary infection in small-pox takes place in the lungs, probably by inhalation. The poison when it enters the circulation shows a selective influence on the epithelium of the skin and respiratory tract, and many cases are probably not further affected.

The serious and fatal lesions of small-pox are caused by the secondary infection from the skin and respiratory tract, and the infectious agent is usually the streptococcus pyogenes. This organism is so distributed throughout the lesions as to explain most of the visceral changes, such as thrombosis, local necrosis, and the various pulmonary changes.

This streptococcic septicæmia is the most striking feature of fatal small-pox, and if it were possible to overcome this condition by a special serum the mortality from the disease would be greatly reduced.

Necrobiosis.

Fairbairn (British Journal of Obstetrics, August, 1903) calls attention to the following points: 1. The tumors most frequently affected by this fleshy necrobiotic change are the intestinal fibroids of moderate size. 2. In spite of their blood-stained appearance, they are not engorged with blood, and hemorrhage and vascular congestion are not the marked features of these tumors, as is seen as the result of interference with the venous return. The characteristic change is one of necrosis, as is seen by the disappearance of the nuclei, or by their inability to take up nuclear stains, and, later, by a softening or a disintegration of the muscular fibres. Their color is probably due to a diffusion of blood pigment through the dead tissue by a process similar to that which occurs in the laking of blood. 3. The change begins in the center of the tumor, and when it is partial the central portions only are involved. In the majority of incidents, however, the whole growth is found to be affected. 4. The process occurs most frequently during the child-bearing period of life, and pregnancy has a distinct predisposing influence in its production. 5. Pain is a very frequent symptom, and is the most common cause of surgical interference; tenderness of the tumor is less frequently observed; fever is unusual. The symptoms produced by these necrotic changes are scarcely sufficiently defined to lead to a recognition of the change having taken place. The occurrence of severe pain in a patient with fibroids, especially during pregnancy, or shortly after its termination, strongly suggests a necrotic process in the tumor, and gives a distinct indication for operative interference.

Puerperal Sepsis.

Burtenshaw (New York Medical Journal, Oct. 24th, 1903) says that in no essential way has puerperal infection differed in its nature or onset from sepsis following a surgical operation. Reduced to few words, the treatment should aim (1) to remove the source of infection; (2) to neutralize the effects of the septic germs or their toxins; (3) to support the patient's vitality. He believes curetting of the septic uterus with a sharp instrument to be unjustifiable, but recommends that retained secundines be removed by means of a finger, or under certain circumstances, with a dull wire curette. Every care should be taken not to wound the endometrium. Lacerations of the cervix and vagina should be cauterized. The cavity of the uterus should then be irrigated with two gallons or more of warm salt solution, or one per cent lysol solution. Both cavities should then be packed with ten per cent iodoform gauze. The author has never obtained as satisfactory results from the use of vaginal or uterine tampons soaked in formalin or alcohol. The doctor does not favor continuous irrigation of the uterine cavity in cases of infection, as the pathogenic organisms are lodged beyond the granulation wall. In sapremia such irrigation might be of benefit. Burtenshaw does not approve of hysterectomy in these cases, as if operation is performed sufficiently early to insure a good result, one can never be certain that the operation is absolutely necessary. To neutralize the effects of the germ invasion he believes in promoting bowel and kidney functions to be-

gin with. The administration of antistreptococci serum has been disappointing, as has the intravenous use of formalin solution. Opening and packing of the posterior cul-de-sac with iodoform gauze is commended. Considerable stress is laid on the good effects obtained from the use of normal salt solution. It is still a mooted question as to the manner in which the solution exerts a favorable influence, but the term *lavage du sang* would appear to be particularly significant in this connection. With the use of unguentum Crede and the collargolum the speaker's experience has been limited.

To support the patient's vitality, Burtenshaw advises that her diet be nutritious to the last degree, but of such a nature that the tax put upon the digestive system shall be reduced to a minimum. The author believes strongly in the administration of brandy or whiskey in liberal doses, not only for their stimulating effects, but as a food. Ergot, strychnine and quinine are always indicated.

Retroflexion Operation.

Alexandroff, S. A., (Centralblatt fur Gynak., 1903, No. 25). The writer has introduced a new operation, which is based on the consideration of the principal factor concerned in that displacement, viz., the accompanying descent of the uterus. This is due to relaxation of the ligamentous supports, especially the bases of the broad ligaments, in which are situated the ligamenta cardinalia and the ligamenta transversalis coli of Mackenrodt. Further, all movements of the uterus are regarded from the standpoint of a lever whose long arm is the corpus, and whose short arm is the collum uteri. The fulcrum of this lever is situated in the upper part of the posterior surface of the collum. Not only the normal but the pathological movements of the uturus take place about the above fulcrum, and the object of the writer's operation is to restore the displaced womb into its physiological position in the pelvis, to correct descent, or, in other words, to raise and fix the fulcrum to the proper height. Since relaxation of the bases of the broad ligaments account for the descent of the uterus, shortening these supports is the last operative procedure for retroflexion with descent. The operation is easy, and is extraperitoneal. The uterus is drawn down. A convex flap from the anterior vaginal wall, together with the bladder, is raised *well* up, and the broad ligaments exposed on either side. A provisional ligature is passed through them at their bases, $3\frac{1}{2}$ cm. from the cervix. A strong round bundle of connective tissue, about 1 cm. thick, is tied on either side by these temporary sutures. The uterus is now brought into anti-version, whilst the assistant crosses the two temporary ligatures and brings the bases of the broad ligaments together in front of the cervix uteri, where they are united by two or three buried sutures, the latter including also some of the cervical tissue. The temporary ligatures are then removed. The buried sutures must not extend above the level of the internal os. The flap in the vaginal vault is then closed, or, if necessary, the prevesical space is drained. In all cases so treated the uterus has retained its proper position and normal mobility. No urinary complications have resulted. Menstruation has not been impaired. Complete after-histories are, however, not yet obtainable.—Australasian Medical Gazette.

Surgical Treatment of Exophthalmic Goitre.

Curtis (Annals of Surgery) says that surgical treatment is capable of curing many cases of exophthalmic goitre which have not yielded to medicine, but has very serious dangers of its own, especially that of acute exacerbation of the symptoms known as thyroidism or thyroid poisoning, which may follow any operation in these patients, whether the operation be performed on the thyroid gland itself or on other parts of the body. Exophthalmic goitre, it is held, can be cured both by thyroidectomy and by sympathectomy, or the removal of some or all of the sympathetic ganglia in the neck. A perfect result, the author asserts, can be expected in about sixty per cent of the cases of thyroidectomy. An immediately good result appears to be the rule in sympathectomy, but sufficient time has not elapsed to judge of the permanence of the cure after this operation. The relative mortality of the two methods would seem to favor sympathectomy. His exprience of thyroidectomy has consisted of eleven cases with three deaths from acute thyroidism and six cures. Of the remaining two patients one was improved and the other was lost sight of. Of the operation of sympathectomy, which he has performed in seven cases, the results have not been much better than those of thyroidectomy, as there were two deaths from acute thyroid poisoning, and a third probably due to the anesthetic. The author thinks that it is advisable to use local cocaine anesthesia for thyroidectomy, and to give this method a trial also in sympathectomy. The latter operation should, he holds, be performed on one side at a time, with an interval between the operations sufficiently prolonged to permit the patient to recover from the effects of the first.

Dr. Curtis considers at length the differ-

ent theories that have been advanced to account for thyroid poisoning after operations for goitre. No definite conclusions are derived from this review, but it is suggested that the frequency of thyroidismus after sympathectomy, and in operations not directly involving the thyroid gland, is in favor of a nervous origin of this condition.

Treatment of Tuberculosis of the Uterus and Adnexa.

Targett (British Medical Journal, Oct. 17, 1903) states that laparotomy is attended with very beneficial results in cases of diffuse or localized tuberculous ascites. If suppuration has occurred and drainage is necessary, the advantages of vaginal drainage through Douglas's pouch are considerable. The rotten condition of the intestinal wall under these circumstances renders the long use of a drainage-tube dangerous from the risk of producing a fecal fistula.

When the tubes are found to be thickened from tubercle in the course of a laparotomy for ascites, they should be removed if the adhesions are not too dense. The author has met with two or three cases in which the removal or disturbance of tuberculous organs has been followed by a rapidly fatal toxemia, as though some poisonous product existing in the tissues had been liberated.

Whether or not it is wise to attempt the removal of caseous tubes when surrounded by dense adhesions is a question which further experience will probably decide. But there can be no doubt that the tuberculous pyosalpinx is best treated by abdominal resection. The dangers of laparotomy are the adhesion of bowel to the abdominal wall, the density of the fibrous adhesions around the appendages, the rottenness of the bowel and tissues generally, and the risk of fecal fistulæ.

When the uterus is affected its tissues are easily torn, and serious ruptures have resulted from the ordinary operation of dilating and curetting that organ.

Neurology and Psychiatry.

Pickett (Journal of Nervous and Mental Disease, May, 1903) records the case of a man aged 35 years, a boiler-maker, who was admitted to the Philadelphia Hospital in 1896. His family history was unknown. His wife stated that he had received a severe blow on the head from a falling log in 1893. Early in 1895 he began to complain of pain in the head, heard vague sounds continually, was sleepless, restless, and had fears of harm and misfortune. He had a number of outbreaks of excitement in which he destroyed furniture at home. He would explain to his wife that these outbreaks were due to nervousness. After a time he developed a fixed delusion that certain workmen at the shipyard at which he worked were robbing him of a patent on a ship which he had devised, but which he was too poor to put through. In August, 1898, it was first observed that the patient was continually uttering in a mechanical way certain strange expressions, which appeared to have no meaning. Urged to explain these expressions, he said, "I do not say these words, but the man on my back says them." He added that this man on his back did various things with his (the patient's) body, moving his arms as well as his lips and other organs of speech. Recently he had gone so far as to set aside some portion of his meals for the imaginary host on his back. On reviewing the literature of the subject the author came to the conclusion that the involuntary or "forced" movements of arms or lips in this case are instances of what certain French writers have called psychomotor hallucination—the utterance of words being verbal psychomotor hallucination, while the delusion that these weird influences causing him to speak, etc., were due to a man on his back was what these French writers called "doubling of the personality." The explanation given by Seglas and Ballet is that, as ordinary hallucinations are ascribed to excitation of cortical sensory centres, and are called psychosensory hallucinations, so these strange motor phenomena, as in the present case, arise from excitation of cortical motor centres, wherefore they may be called psychomotor hallucinations. The angular gyrus being irritated, the patient sees visions; the hinder part of the first temporal convolution, he hears voices; the foot of the third frontal convolution, he feels words spoken silently in his head, or he may even feel his organs of speech moved and hear words uttered by his own lips, to the patient's surprise, since he has not consciously conceived or willed these utterances. The silent "interior spoken word" and the unconsciously uttered word arise by the same mechanism; both are psychomotor hallucinations. Ordinary (sensory) hallucinations are promptly "exteriorised;" the voices heard are ascribed to outside agencies, etc., but the psychomotor hallucination impresses the patient as being due to a mysterious agency within himself; and so in time he forms the conception of a new, strange being inhabiting his body or in intimate association with his body. This is the "double personality" of the French, and is exemplified in this patient with "the man on his back."

The Surgical Physiology of the Lymphatic System.

A study of the lymphatic system readily explains many normal physiological, as well as pathological processes. The subject is deservedly receiving more attention from surgeons who now generally recognize that aside from acting as the general absorbant system, it is constantly engaged in maintaining nutrition as well as the defense against pathological processes.

All tissues are provided with lymph vessels and glands in direct proportion to their exposure, activity and necessity for repair.

The tissues of the body are constantly bathed in lymph, which fluid, similar to and derived from the blood plasma, must all pass through the lymph vessels and glands. In the glands the lymph is exposed to the direct action of the leucocytes which are there found in great abundance. It is in the glands that infection is checked and destroyed, if it does not overpower the gland and develop local growth. An enlarged gland is an evidence of a local struggle or a defeat. The lymph system undoubtedly performs a great function in draining the ductless glands. Considering the lymph supply of certain regions, we find that the brain is defficient in lymphatics in its structure, the arachnoid serving purpose upon its surface. Haemorrhages into its structure become cysts from lack of absorption and infections in its substance cause but little temperature or general disturbance except from pressure. The liver and kidney show the same condition in a less marked degree. The lungs, rich in lymphatics, give constant temperature from infectious diseases. Chills usually signify the direct delivery of accumulations of infection into a vein. In certain diseases resulting from a loss of equilibrium between the production and absorption of fluids, we substitute one set of lymphatics for another by operation as in glaucoma and hydrocephalus.

When we consider lymphatic conditions in connection with surgical work, we find that there is a real principle involved in drainage whether it be internal or external.

Varieties of Drains and Drainage Adjuncts.

First is rest by splints, pressure dressing or bed, to quiet the circulation. Second, by elevation to reduce arterial supply and favor venous and lymphatic return. Third, by massage to break up coagulated exudates and enable the lymph vessels to remove the exuded material. A good masseur, for instance, will relieve the ecchymosis and swelling of a black eye in a remarkably short time by alternate massage and rest. Fourth, moist dressings favor escape of exudate from open wounds and also favor the lymphatic circulation in closed injuries. Fifth, adjuncts to drainage in the use of solutions having affinity for moisture acting by osmosis as glycerine or alcohol. Sixth, wound drainage is accomplished by the open method with or without secondary suture. Seventh, by separate incision. Eighth, by wicks, capillary or tubular drains or gauze packs as mechanical aids.

C. H. Mayo, M. D., abstract of paper read before the Southern Surgical Association, Dec. 15th, 1903.

One Thousand Cases in Students Out-door Obstetric Practice.

Dr. Winn's report of his Students' Out-Clinic in Obstetrics at the University College of Medicine, Richmond, Va., presents many points of interest and scientific value. The mortality was low, 5 deaths in 1000 cases, or one-half of one per cent. One death from postpartum hemorrhage, one from eclampsia, one from septic peritonitis supervening upon rupture of gonorrhœal pus tube as revealed by autopsy, one from shock complicated by late stages of tuberculosis, and one from apoplexy induced by eclampsia. The mortality rate contrasted with clinics older and better known gives this clinic second place in point of low mortality. The others referred to being the Frauen Klinik, Berlin; Obstetric Clinic, Prague; Baudelocque's Clinic, Paris; and the Society of Lying-in Hospital, New York City. Considering that most of the deliveries were under unsanitary surroundings, this showing is the more excellent. The aim has been to impress the students with the danger of infection, and without making any great array of aseptic paraphernalia, to reduce the system of disinfection to the simplest possible technique. Special care is observed in making vaginal examination, but the ante-partum vaginal douche is not employed. The effort is made to keep the hands and particularly the examing hand, sterile, and both genital and hand-disinfection is repeated before each examination. Vaseline is not employed as lubricant. Reliance is placed on thorough scrubbing of hands and forearms of each attendant followed by immersion in bichloride, 1 to 1,000, not less than five minutes, and in lysol, 1 drachm to the pint.

The very favorable showing is believed to be due in part to the scrupulous care bestowed on the genital tract during the third stage of labor not only in guarding against the invasion of pathogenic organisms, but

John F. Winn, M. D., Richmond, Va., (Journal of American Medical Association, Vol. XLI, No. 14. Page 847, Oct. 3, 1903.

also in observing the time for and the manner of delivering the placenta. The author holds that the hasty or precipitate resort to Crede's method is largely responsible for the incomplete delivery of the placenta and membranes and for the sepsis frequently dependent thereon. For this reason the management of this important part of delivery is based upon the cardinal principle that nature has her own time for separating and expelling the placenta *at full term*, as indicated by a signal easy of recognition, and that any method designed to excite uterine contraction before nature indicates that the placenta is ready to be cast off must be regarded as not in accord with natural processes. The uniform rule in this clinic is to place one hand over the uterus immediately after the child is born, but no friction is made, nor is any effort exerted to excite uterine contractions so long as the uterus remains firm. The slight rising of the fundus, while firm, is the signal that the uterus is ready to expel the placenta. The lifting up of the uterus may occur before the average "twenty minutes" or it may be delayed. As soon as it is observed by the "sentinel hand," the uterus is grasped firmly with one or both hands and pressed downward in the axis of the superior strait. If after waiting three-quarters of an hour, there is still no sign of placental separation, the Crede method is resorted to without further delay. The membranes, instead of being twisted into a rope, as recommended by many, are allowed to trail out, which they will readily do during that normal relaxation which follows uterine contraction. In a general way, all attendants act on the principle that every placenta, at *full term*, has its own time to separate, and that it is better to wait until that time arrives before resorting to artificial stimulation of the uterus. By the rigid observance of this rule it has been a rare occurrence to have even a retained placenta, and no cases of adherent placenta have been met with at all. All students are strictly enjoined to avoid interference with the genital tract after the child is born, and experience has demonstrated that, just in proportion as this rule is regarded, the puerperium is marked by fewer deviations from the normal.

Subglottic Sarcoma Removed Endo-laryngeally with Galvano-Cautery Snare.

Gleitsmann (*Med. Record*). The case was a man aged 52 years. Four months before the writer saw him, the patient had an attack of hoarseness. It came on suddenly and continued, accompanied by laryngeal cough. During the period mentioned he had lost twenty-five pounds in weight. On examination a growth was found below the vocal cords, filling the greater part of the tracheal space, and seemingly attached to the anterior surface just below the larynx.

After applying cocaine and adrenalin, the tumor was removed by means of the author's iridoplatinum wire with Schenk's handle and canuvla. No ill effect followed the operation, and the patient's voice soon began to improve. One month later the stump was removed and the base cauterized. Five months later there had been no return. The pathologist's report corroborated the writer's diagnosis.

A Fibroid of the Uterus in a Girl of 13.

Cavaillon (M. P. de), Jour. de Med. de Paris, Aug. 24, 1902. As this case is a remarkable one, a short note may be of interest. The first menstrual discharge, which was very profuse, occurred when the patient was 12 years of age. Severe menorrhagia continued for the next eight months, causing extreme anæmia with digestive disturbances, palpitation, œdema of ankles, etc. Examination 11 months after first menstruation revealed a mass as large as two fists, movable with the uterus, and filling up the pelvis. There was no trouble with the bladder or rectum; there was some pain in the perineal region, especially at the menstrual periods. For the three following months the menorrhagia ceased, but examination showed a marked increase in the size of the tumor, which still appeared perfectly continuous with the uterus. The diagnosis was not easy; menstrual retention was excluded by the passage of the sound, and the history was against pregnancy. The diagnosis of uterine tumor was made with some reservation in view of the patient's age. Hysterectomy by Doyen's method was performed and the patient made a good recovery. The tumor after removal weighed three kilogrammes; it had developed into the posterior wall of the uterus, which was everywhere greatly hypertrophied. The cervix was not involved, and there was no ulceration of the mucosa. In the Lyon Medical, June 15th, 1902, the histological examination is given. It was made by M. Bernard de Teyssier, who reported the tumor as being a fibromyoma. Judging by the first appearance of the symptoms the tumor was present when the patient was only 12 years of age.—Australasian Medical Gazette.

Some Indications for Inducing Abortion and Premature Labor.

Pool, (*Brooklyn Medical Journal*), says when the measurements are below 3 inches for the true conjugate, there is the choice of immediately emptying the uterus or of

doing the Cæsarean operation just before term. When a lesser degree of contraction exists, i. e., 3 to 3½ inches for the true conjugate, induction of labor before term finds its greatest usefulness. It has been stated that induction of labor at the thirty-sixth week causes a fetal morality of 40 to 50 per cent. Induction of labor at this time or even earlier is certainly not attended with greater danger to the child than the attempt to force the head through the contracted canal at term, and it is much less dangerous to the mother.

Chronic nephritis is almost invariably an indication for the termination of pregnancy in the early months, particularly if the renal insufficiency be marked. We have to deal not so much with a present as with a future condition. The mere presence in the urine of albumin, even in large amounts, does not of itself demand abortion. The amount of urea is a more reliable index to go by. The daily amount of urine passed is of importance, and anything less than 50 ounces when albumin is present should be regarded with suspecion. Urinary findings and symptoms of a grave nature towards the end of pregnancy furnish additional indications for the induction of labor because of the toxic effect on the child. Many such children are stillborn or die shortly after birth.

Of diabetes it is stated that more than 95 per cent. of the women affected by this disease are sterile.

The pernicious vomiting of pregnancy presents a most perplexing problem. The disease has been divided into three stages: (1) Vomiting and mal-nutrition; (2) fever, rapid pulse, diarrhea, emaciation, and attacks of syncope; (3) cerebral symptoms, i. e., delirium, hallucinations, etc., followed by coma and death. Surgical measures should be resorted to when medical agents fail to relieve. Abortions should not be induced before all corrections of displacements, etc., have been made. A partial dilatation of the cervix when it is possible, has cured many cases.

It has been said that a woman having heart disease should not marry. But it would seem that no such single rule can be applied to all cases. The indication is found in the form of the lesion. Aortic murmurs and mitral stenosis are of importance and when present in a marked degree, early abortion should be the rule. Of greater significance still is a dilated heart wall and would be an indication that pregnancy should not be allowed to proceed.

Pregnancy is a recognized exciting cause of tuberculosis in women having a tendency to this disease. The subsequent development of tuberculosis in the child is another, though somewhat remote contingency, to be considered. A woman having an active form of tuberculosis should not become pregnant. If conception has occurred, it would seem advisable to terminate pregnancy at the earliest possible moment.

On the Use of Pure Carbolic Acid in the Treatment of Smallpox.

Brindley and Bonis (*The London Lancet*, Oct. 24, 1903) recommended the use of pure carbolic acid in the treatment of this disease. The pure acid in a liquefied state is applied to the vesicles over a limited area with a small camel's-hair brush, the application being made on successive days. On the first day the face and neck are selected for treatment, on the following day the hands and arms, then the lower extremities, and finally the trunk. The effect of the acid is seen in the rapid shriveling up and scabbing of the vesicles. A second or third application may be made if necessary over certain parts of the body. An important detail of the treatment is to secure the early removal of the scabs, either by an oil poultrice or otherwise, as this tends to prevent subsequent abscess formation.

There is no reason why it should not be entrusted to an intelligent nurse, with instructions to use the acid cautiously in the neighborhood of the eyes, and not to allow it to run on the healthy skin. The treatment is found to cause little or no pain or discomfort—in fact it relieves the intense irritation which is so prominent a feature in smallpox. We have not observed any signs of carboluria or other evidence of toxic action from absorption of the drug. The effect would appear to be purely a local one, the acid penetrating the walls of the vesicles and pustules, disinfecting their contents, and hence preventing the absorption of septic matter into the system.

One of the most striking results of the treatment is the comparative mildness of the secondary symptoms or those coincident with the maturation of the pustules. In many cases the patients expressed themselves as feeling well and hungery by the eighth or ninth day after the appearance of the rash, or even earlier. By this time the pustules on the face will have disappeared, and the great majority of those on the limbs and trunk will have dried up or aborted. After the temperature has fallen on the appearance of the eruption, it usually remains at a low level during the rest of the illness, even in severe confluent cases averaging not more than 100 deg. or 101 deg. F. In several of the author's patients the temperature was practically normal throughout. A corresponding improve-

ment is noticed in the state of the pulse and the general symptoms.

With regard to the subsequent pitting the carbolic treatment is decidedly beneficial in lessening the disfigurement, although it is not to be relied on as a certain preventive. We think it is reasonable to conclude that, by shortening or modifying the severity of the pustular stage of the disease, the liability to the formation of deep and permanent scars is diminished. Another point is that this use of the germicide tends to diminish the risk of infection from aerial convection, and to remove the disagreeable odor which accompanies many cases of the disease.

The Abuse of Flat-foot Supports.

Townsend (*Amer Jour. Orthoped. Surg.*) states that the treatment of this condition without consulting a surgeon has become very common, as evidenced by the fact that various forms of support are to-day for sale in all the larger stores where footwear can be brought, and the daily, weekly, and monthly lay press, in addition to the medical journals, contain many advertisements of plates, braces, springs, supports, etc., warranted to cure flat feet, perfect in fit, self-adjustable, and easily worn in any shoe. The diagnosis of flat foot is, as a rule, not difficult, but that errors are quite common cannot be denied, and that even the most expert diagnosticians may at times be puzzled as to the true nature of a valgus deformity, must also be admitted. The most frequent errors in diagnosis are mistaking an ostitis of the tarsus or ankle, a metatarsalgia or neuritis, or an inflammatory rheumatic condition of the parts about the inner side of the foot, for a flat foot. Other errors, but less frequent, are the application of flat foot supports for pain in the feet due to a cavus deformity, a periostitis of the os calcis, and to extreme grades of malposition after Pott's fractures. In one instance, a sarcoma of the sole of the foot was treated for some time by braces under the idea that the deformity disability and pain were due to flat-foot. When the support is not indicated it frequently does harm. When flat foot exists, it does not necessarily follow that a support must be applied, because there are contra-indications for its use. Extreme spasm, extreme deformity inflammatory conditions, may be present, and the use of a support does more harm than good. These contra-indications are well known to the profession, but not to those who simply buy supports as they would buy any article of clothing. Another damage resulting from the indiscriminate use of supports and their application to all cases, suitable and unsuitable, is that many mild in type and easily cured by medical men are allowed to grow worse under this faulty plan of treating a foot disability by those without medical knowledge. Another error of treatment, which is the one that specially deserves to be considered, is the application of supports that do not fit, that do not fulfill the indications for treatment, and that are so poorly constructed that even from the standpoint of their makers they in no sense of the word act as supports, because they are so frail or weak they can barely retain the position or shape they were made, and lose all semblance of it as soon as weight is put on. Different cases require different treatment. The valgus or abduction of the foot must be overcome, the weakened structures must be strengthened, the free and normal motions of the foot must be restored, the deformity overcome, the patient made to walk as patients with normal feet should walk, and the application of a support simply intended to push up a weakened arch can never accomplish this. Temporary relief may be obtained, but never a cure, where a true and severe degree of flat foot exists. A proper support may be applied, and all its benefits lost by an improper shoe. Perfect reduction of deformity may be gained by the use of a support, and by not strengthening the muscles and cultivating normal movements the foot may be still further weakened rather than improved. The form of support will vary, individual preferences will prevail, but the treatment of flat foot should be carried on by medical men.

Fracture-Dislocation of the Spine.

Dr. J. Shelton Horsley, Richmond, Virginia read a paper on "*Fracture-Dislocation of the Spine*" at the Southern Surgical and Gynecological Association at Atlanta, Dec. 15th. He reviewed the opinions of several authorities on the treatment of this lesion, and showed that opinions have changed from time to time. The operation of laminectomy is a very old one, dating from the 7th century. Sir Astley Cooper favored the operation; Bolton of New York in a paper published in 1899 has given very pessimistic views, but of late the tendency seems to be to favor operation. McCosh, of New York, and Harte, of Philadelphia, have done a great deal to promote this view. McCosh has reported two cases out of six that have been absolute recoveries. Harte and Stewart have reported a case in which there is positive evidence of regeneration to a great extent when the cord had been completely severed at the 7 and 8 dorsal vertebræ. Dr. Horsley recommends that in treatment individual judgment should be used as in other surgical opera-

tions. He emphasizes the similarity between injuries of the spinal cord and injuries of the brain so far as treatment is concerned, and calls attention to the fact that without an operation or a postmortem examination it is impossible to tell by symptoms alone when the cord is completely destroyed. He advocates the plan of McCosh, to operate in all cases of complete paralysis below the injury unless there is improvement within 24 hours after the injury. When the trauma is especially marked he operates sooner. He points out that the danger of delay lies in degenerative changes on the spinal cord which set in soon after the injury. Early operation may arrest this degeneration. He reports six cases. In two of them the injury was received several years before he saw the patient. In one there was a forward dislocation of the axis and atlas from the third cervical vertebra; this was demonstrated by an X-ray picture. The patient had paresis of the muscles of the arms, body and thighs. There were disturbances of sensation in various degrees over the body and limbs. He reports two other cases in which fatal results rapidly followed the injury. One was from a gun shot wound, and the other was the result of a fall on the shoulder in which there was a fracture-dislocation in the lower dorsal region. The last two cases he operated upon, in one of these there was an injury at the lower dorsal region where the whole of the dorsal spinal column was dislocated forward upon the lumbar spinal column. The spinous process of the last dorsal vertebra was fractured. The cord was caught between the last dorsal and the first lumbar as between the blades of a pair of scissors. However, it was not completely crushed as the dislocation was not extensive enough. It was impossible at the operation to reduce the dislocation, so the spinous processes and the laminæ of the last 3 dorsal vertibræ were removed. This relieved pressure on the cord. The patient died, however, from pneumonia a week later without any improvement in spinal symptoms. A postmortem showed wound in excellent condition, with the cord softer than at the time of operation, and solidification of the whole lower lobe of the right lung, and a part of the middle lobe. In the other case operation was undertaken about a month after fracture of the 11th and 12th dorsal vertebra in a laborer 19 years of age. The cord was almost completely gone, there being a few fibres remaining from its anterior portion. The laminæ had been fractured and driven into the canal. One of the articular processes had also been driven into the canal. These were removed, and the wound closed leaving a small catgut drain. There was no decided improvement in his condition for six weeks after the operation. At this time he urinated voluntarily; two weeks later there was noticeable improvement in both sensation and motion in the thighs. This improvement has continued until now, about three years after operation. His thighs are practically normal, both as to motion and sensation; bladder and rectum act naturally and his general health is excellent. He can stand with support, and walk by having strong support on each side. His legs and feet, however, are still paralyzed both as to motion and sensation. At present he weighs nearly 200 pounds, and is quite comfortable, except for occasional pains in his legs.

Clinical Study of a Gravid Uterus at Term Fixed in Lateral Retroversion by Perimetric Adhesions.

Pinard (*British Journal of Gynecology*, August, 1903), formulates the following conclusions: (1) Extensive perimetric adhesions fixing the uterus in an irreducible malposition are not incompatible with the development of pregnancy to term. (2) In the case considered, the great deficiency in the development of the adherent posterior wall of the gravid uterus fixed in lateral retroversion was compensated by exaggerated development of the free surface of the anterior wall. (3) The irreducible fixation of the uterine body in lateral retroversion also led to an atypical development of the inferior segment—that is to say, to an enormous distention of that portion of the uterus upon which the axis of the deviated uterine body ended. (4) The irreducible malposition of the fetus corresponded with the complex distortion of the uterus and the unequal development of its walls. (5) The consequent dystocia necessitated the Cæsarian section and hysterectomy in the interests of both mother and child. (6) The intervention was completely successful as regards both.

Diagnosis of Phthisis.

Williams (British Medical Journal, Nov. 21, 1903) discusses the diagnosis of excavation, or cavity formation, in phthisis. The process in its simplest form seems to be a necrobiosis of the alveolar wall from the results of the epithelial proliferation caused by the irritation of the tubercle bacillus and possibly owing to a chemical change in the cells themselves. The liquefaction of the caseous mass is only a further step of disorganization. The process is often accompanied by fever and increased cough, and the expectoration becomes more abundant, purulent, and contains large quantities of living tissue. The physical signs consist of coarse and large crepitant rales, and the

ominous click sound on cough, followed by the croaking and tubular sound, soon passing into the various modifications of the cavernous sound. Catarrhal sounds often mask the signs distinctive of softening. The percussion sounds over a cavity depend partly upon its distance from the chest wall, the cracked-pot sound is not an index of the size of the cavity, but indicates that it is superficial and immediately underlying the spot struck. To evoke it properly the mouth must be open. Where the cavity lies deep the percussion note is often dull. Retraction of the chest wall is often seen in cavity formation; it is easiest seen in the first or second interspaces. Contraction of a large cavity often causes flattening of the chest wall. Large amphoric cavities may be mistaken for pneumothorax. Lung tubercle softens in the order of its formation, so that cavities are commonest and earliest in the upper portions of the upper lobes. No conclusion as to the absence of a cavity should be arrived at with making the patient cough; it is as important as in the incipient stage of phthisis. The loudness of cavernous sounds is no index of the size of the cavity. Cavities may be dry or secreting, primary or secondary, basic, contracting and amphoric. The dry cavity is the result of chronic disease, and gives rise to no symptoms beyond morning cough and expectoration. In many cases they remain patent for years, and have on their walls aneurysms, which may rupture and cause sudden death. Secreting cavities are found in connection with acute forms of disease, and often extend rapidly. Secondary cavities are formed through the reinhalation of the secretion or sputum of primary cavities. Cavities may contract rapidly, but as a rule the process is a gradual one. The chief signs of contraction are: (1) flattening of the chest walls overlying the cavity, and contraction of the chest circumference of the side; and (2) displacement of neighboring organs. In amphoric cavities the excavation is so extensive that the air present gives rise to characteristic signs. In bronchiectasis the patients are most often children or middle-aged persons, showing no signs of wasting; the sputum is frothy, mixed with pus, and more or less offensive; and finally the majority of bronchiectatic cavities are basic. When they occur at the apex they are near the median line, and the percussion sound is resonant from the accompanying emphysema.

The Diet of Diabetics.

Hutchinson (Edinburgh Medical Journal) devotes much attention to the practical question as to whether the carbohydrates of the diet should be withdrawn at once, or reduced in amount gradually. There are arguments in favor of both plans; the great argument in favor of withdrawing the carbohydrates immediately is that it saves time, and that the condition of the case can be ascertained right away; the best routine way of proceeding is to put the patient on an ordinary diet for three or four days; at the end of that time a careful estimation of the total excretion of sugar should be made and the result noted; the next step is to reduce the carbohydrates in the diet in successive stages: first by eliminating the grosser forms of carbohydrates, *i. e.*, sugar, puddings and potatoes; then omit the bread, and in some cases it is even necessary to exclude the milk. It must be remembered that in abolishing the carbohydrates the patient is deprived of a large amount of potential energy, and some suitable substitute must be found; fat is the only true and safe substitute for carbohydrate in the diet of a diabetic, because it is the only constituent of the food out of which sugar cannot be formed, so the main part of one's duty in dealing with a diabetic is to educate him in the eating and digestion of fat. The most digestible form of fat must be selected, for most diabetics seem to have an inherent inability to digest it easily; that is perhaps one reason why they become diabetic at all; they have a natural dislike of fats, and they take instead a disproportionate quantity of carbohydrates, with the result that they overstrain their assimilating functions for this ingredient of the food. Amongst the fats which are most easily digested are cream, bacon, butter and salid oil, and these must be given in large quantities. The next question to be considered is, what is to substitute bread in the patient's diet? This change has been rendered possible by the introduction of casein preparations which form the basis of all the modern diabetic breads. Gluten bread is open to two objections: in the first place, it is so extremely light, that one requires to eat a very great deal to get a moderate amount of nourishment out of it; in the second, it is never a non-starchy food. Casein breads are not open to these objections, and the one to be specially recommended is that called "casoid meal bread." With regard to milk, many diabetics can take a moderate quantity with impunity, though lactose is certainly borne better than most forms of carbohydrate; still, to get the blood absolutely sugar-free, some substitute for milk must be found which contains no lactose, such a milk can be prepared which contains the casein and fats and salts of ordinary milk, but no lactose, and it can be used in the same way as ordinary milk in tea, coffee, or baked into a custard.

As regards beverages, it is an advantage to most diabetics to allow them some alcoholic drink. Alcohol is a food for diabetics, for every gramme yields seven calories of heat when consumed in the body, and most diabetics are certainly better for a certain amount of it with meals, and it also makes it easier for them to digest fat. They can have almost any wine, provided it is not unreasonably sweet, or they can have spirits if they prefer them. But the malt liquors are to be avoided, because they contain a large amount of dextrine and maltose. But from time to time the patient will have to return to small quantities of ordinary bread, etc., which will add to his comfort and do something towards restoring his powers of assimilating sugar. It is very difficult for a patient to take enough fat, if he is on a perfectly strict diet; but if he is allowed a certain amount of potato mashed and soaked with butter, and buttered toast, he will be able to keep more down.

Principles of Infant Feeding.

Henry D. Chapin, M. D., (Archives of Pædiatrics) says:

1. At the beginning of the mammary stage an infant has only the rudiment of a true stomach.

2. During the period of mammary development, the mother first changes the character of the infant's nourishment from colostrum to milk, and then the infant's digestive secretions so change the character of the milk, that, as the digestive juices increase in quantity and strength, the work of digestion is not thereby lessened, but rather increased, as the stronger the gastric juice becomes, the tougher the milk curds become, owing to the acid combining with the curds.

3. The milks of all animals will produce good tissue. They differ in composition according to the rate of growth of the young animals. Their proteids differ in accordance with the type of digestive tract they are to develop.

4. No known method of procedure will convert cow's milk into human milk. All methods of artificial feeding must have in view the production of food that will adapt itself to the developing of digestive tract. All substances aside from breast milk are foreign to the infant's digestive tract, and may at times cause disturbance.

5. In artificial infant feeding, certain minimum quantities of digestible proteid, fat, carbohydrates and mineral matter are needed. The mean composition of breast milk will serve as a general guide to the nutritive requirements of infants.

6. Milk must be the basis of an infant's food, not alone because it contains animal proteid, but because it contains the only available form of proteid that possesses the function of developing the digestive tract.

7. The proteid of cow's milk, which was intended to develop a calf's stomach to digest grass, must be modified or adapted to the infant's stomach.

8. This may be done by chemically or mechanically altering the character of the curds, by diluting milk with either alkaties or gruels.

9. When, for any reason, a sufficient quantity of proteid of cow's milk cannot be given, it must be supplimented by other forms of nucleo-albumins until the normal quantity can be digested. It is a gross error to feed too low proteids of milk simply to overcome digestion.

The Syphilitic Nature of Tabes and General Paralysis.

Leredde (Philadelphia Medical Journal) says that tabes is admitted to be usually of syphilitic origin, but that the lesion of the cord and roots is degenerative in character; in its origin it is often associated with a generalized syphilis of the meninges, which is distinctly inflammatory in its nature. Omitting all secondary degenerations, many of the lesions of tabes and general paralysis resemble ordinary siphilitic changes, especially in the meninges.

Treatment by antisyphilitic remedies may cure these definitely syphilitic lesions without much effect on the secondary conditions. Recovery in tabes and general paralysis means, for the physician, arrest of the disease.

In a recent case of tabes, such symptoms as pain, ocular paralyses, urogenital troubles may be influenced by antisyphilitic treatment. Even in old cases the lightning pains and urinary symptoms can be modified or dissipated. Dinkler published 71 observations of tabes treated by mercurial inunctions, of whom 58 showed great amelioration of one or more symptoms.

Bockhart treated 95 cases with inunctions; of 58 early cases, 10 made slow progress, in 33 improvement was noted, and in 12 the disease retroceded.

Ledeic reports six cases practically recovered under antisyphilitic treatment, the histories of which are given.

Lemoine, Davay and Cassaet have published some remarkable case histories of six patients with genital paralysis who have recovered. Aubery reports ten others.

The Present Status of Stomach Surgery.

Ochsner (Interstate Medical Journal, November, 1903), says that stomach surgery merits permanent standing in the treatment

of well-recognized conditions, in fact that most diseases of the stomach which cannot be relieved by the means employed by the practitioner of internal medicine, in which hygiene and diet are of the greatest importance, must ultimately be treated surgically. In most of these cases there is faulty stomach drainage, due to a spasmodic contraction of the pylorus from the presence of an ulcer, or to the permanent narrowing of this passage from the cicatrix or other conditions secondary to ulcer, such as a pouch-like deformity of the pyloric end, an hour-glass stomach or pyloric carcinoma. Diagnostic difficulties arise from conditions entirely outside the stomach, producing symptoms referred to the stomach. Gall-stones, appendicitis, intestinal or omental adhesions, even neurasthenia, may produce symptoms rendering positive diagnosis difficult if not impossible.

To the chronic cases referred to should be added acute ulcers of the stomach not yielding to the usual medicinal treatment, all of which can be relieved by making a gastro-enterostomy between the lowest portion of the stomach and the jejunum large enough to afford permanent drainage of the organ.

The Murphy button is preferred in excision of the pylorus, but not in other gastro-enterostomies, because of liability of the opening to contract.

Of 71 gastro-enterostomies performed, 34 have been with the Murphy button and 33 with the McGraw ligature, which he has found exceedingly satisfactory.

The Management of Children Predisposed to Phthisis.

McConaghy (International Med. Mag.) suggests the following treatment in the case of children predisposed to phthisis. They are usually undersized, weak and somewhat anemic, take frequent colds and have a dislike to all kinds of exercise. (1) On arising take a glass of hot or cold water. (2) Breathing and other exercises in a well-aired room. Clothing loose, feet bare. Stand with the heels together, the toes turned out, the abdomen drawn in, the chest forward and upward, the arms hanging loosely. Have the hands on the posterior aspect of the thighs and slowly exhale all air from the lungs. As the arms are elevated to a position above the head, turn the palms up and the arms back, at the same time take in a full slow breath. The inspiratory act should be completed just as the hands come together over the head. In lowering the arms turn them backward and slowly exhale. At the end of the respiratory act bring the chest into a state of extreme contraction by crossing the arms in front and bending forward, at the same time making a forced expiration to get rid of the residual air. Keep the mouth tightly closed throughout the exercise. These movements, besides increasing the measurements and contour of chest, develop the muscles of respiration, increase the breathing capacity, elasticity and circulation of the lungs. They should be taken fifty times and should occasionally be interrupted by other movements which will develop the muscles of shoulders and spine. (3) A regular time for stool immediately after the exercise. (4(Cold bath with a wash-cloth wrung out, and bathing each part at a time, drying it with vigorous rubbing in an upward direction. (5) Play in the sun an hour each day. (6) Encourage proper carriage of the body; chest udward and forward, abdomen drawn in, arms hanging loosely. (7) Cultivate habit of deep breathing in the street and breathe through the nose. (8) Sleep on a hard mattress and without a pillow. (9) Limit the child's studies. In the matter of clothes, stocks, mufflers and furs should be forbidden. The body should be hardened by exposing it to the air daily, walking around the room unclothed and with the windows open. This treatment should be begun in summer.

The Relative Importance to the Community of Pneumonia and Tuberculosis.

Arnold C. Klebs (Maryland Med. Journal) draws the following conclusions:

1. That the relative economic importance of pneumonia and tuberculosis cannot be estimated by a mere comparison of total mortality figures for each disease.

2. That the high mortality figure, and its increase of late, for pneumonia is produced by the enormous death-rate, and its increase, attributed to this disease in early childhood.

3. That, therefore, the high mortality from pneumonia, and to a certain extent its increase is due to a classification of different ill-defined pathologic conditions under one name, while that from tuberculosis represents that of a morbid entity.

4. That for this reason, and on account of the relative shortness of disabling sickness and frequent recovery in tuberculosis, the relative importance of the two diseases is so vastly different that a comparison on economic grounds reveals the overpowering danger from tuberculosis.

5. That the steady decrease of the tuberculosis death-rate can be explained on the grounds of increasing improvement of hygienic conditions of late years and as the result of specific prophylactic measures.

6. That the increase of the pneumonia death-rate, occurring in a time of improving hygienic and sanitary conditions and of a general application of antiseptic prin-

ciples, shows its independence of these features.

7. That, therefore, and in view of the still enormous mortality from tuberculosis, its demonstrated preventability and the possibility of its arrest only in its earliest stages, the institution of educational measures in regard to personal and public hygiene, widely and specially applied for the prevention of this disease, seems to be distinctly indicated.

8. That since for pneumonia, as pointed out by E. F. Wells, "the fundamental information on which phrophylactic rules may be formulated is not yet at hand," this subject needs further investigation, from a bacteriological and epidemiological standpoint as well, before "exaggerated and irrational notions in regard to its dangers and avoidance" are communicated to the public, which, in view of the facts given, are out of proportion.

Treatment of Pneumonia.

Musser (Canada Lancet) says:

1. Indications derived directly from the diagnosis.

2. Those based upon the conception of the morbid process.

3. Those based upon the symptoms.

4. Results of examination of organs and structures of the body not related to the disease.

5. Facts derived from the social, family and previous medical history.

Following this outline, some of the points suggested are:

1. Antipneumoccic serum is not recommended.

2. Early and frequent dry cupping; calomel as a purge, and the free use of water both internally and externally; salt solution subcutaneously and per rectum; and alcohol, if necessary, in the form of champagne.

3. Pain to be relieved by cupping, ice locally, or morphine hypodermatically.

4. Complicating serous meningitis indicates spinal puncture. If the kidneys are affected, they need quite ai careful attention as the lungs. Dyspnœa due to dilatation of the right heart, either before or after the crisis, demands venesection or leeching.

5. The patient's habits also furnish various indications.

Sixty per cent. of all cases of pneumonia require chiefly careful nursing; in the remaining 40 per cent., a great deal must be done by the physician.

Cancer of the Rectum Complicating Pregnancy and Labor.

Russell (Scot. Med. and Surg. Jour.) describes a case of carcinoma of the rectum in a woman only twenty-seven years of age and pregnant for the sixth time. As the rectal growth was extensive an abdominal hysterectomy was first done. The tumor thus exposed was seen to have infiltrated adjacent structures, so only a left inguinal clostomy was performed. Study of the recorded cases, which are tabulated by the writer, has led to the following conclusions: (1) Rectal discharge and induration of tissues should always be suspected and at once investigated; (2) if cancer of the rectum is discovered early, is still limited in extent, and pregnancy is not far advanced, immediate radical treatment should be considered, though probably the emptying of the uterus should be a preliminary owing to the greater risk of hemorrhage in the gravid state and the danger of abortion; (3) in advanced pregnancy with a small circumscribed growth, the uterus should be emptied before removal of the growth; (4) in advanced pregnancy with living viable child, where there is doubt before opening the abdomen, Cæsarian section and hysterectomy should be performed, and if the case is favorable and the patient can stand it, an inguinal clotomy should follow and the diseased rectum should be detached from above so as to allow the operation to be easily completed by the vagina; (5) when, on the other hand, the disease is found to be beyond radical treatment, the child should be saved by Cæsarian section or hysterectomy, with or without colotomy, as may be necessary; (6) if the child is dead and the cancer is beyond operation, Cæsarian section is still likely to be needed unless labor can be accomplished *per vaginam* easily and without undue crushing or laceration, with the help of perforation, embryotomy or version.

The Comparative Value of Oral and Rectal Temperatures in the Study of Pulmonary Tuberculosis

S. R. Williams (British Medical Journal, Oct. 24, 1903).

Temperatures taken in the mouth during or shortly after exercise cannot be considered trustworthy unless registered with such precautions as militate against their general practical applicability.

Temperatures taken in the rectum during rest generally speaking register higher than in the mouth, but do not otherwise usually afford any special assistance in the management of phthisical cases.

Temperatures taken in the rectum during or shortly after exercise in both healthy and phthisical subjects register considerably higher than that in the mouth, and whilst in the non-tuberculous the return to normal is more rapid than in the tuberculous, no special direct advantage for the phthisical

appears especially to accrue from this method.

For practical purposes, in the management of phthisical cases undergoing so-called sanatorium treatment, the registration of temperature by the oral method when taken during rest and with due care affords reliable guidance.

Operations on the Stomach and Duodenum.

Mayo (*Annals of Surgery*) says that disease of that portion of the duodenum anterior to the entrance of the biliarypancreatic duct partakes rather of the character of gastric than of intestinal disease, and may be practically included with the former.

The following method of operation for cancer of the stomach is used by the author: (1) The gastric artery is tied, and then the gastrohepatic omentum, close to the liver, from the pylorus to the gastric artery. (2) With fingers in the lesser cavity of the peritonæum the gastrocolic omentum is tied. The duodenum and the pylorus are doubly clamped, division between them with the cautery knife following. The duodenum is surrounded with a silk purse-string suture three-fourths of an inch below the divided end, the cauterized area is sutured with catgut, the stump inverted, and the purse-string suture tightened. (3) The gastrocolic omentum is tied near the origin of the left gastroepiploic artery, which is also tied. (4) A groove made with heavy pressure forceps separates the dome from the remainder of the stomach. A shoemaker's stitch with catgut on two needles in the groove protects the retained portion of the stomach and makes section of the stomach with the actual cautery bloodless. The line of suture is turned in by a continuous silk Cushing suture, which may be supported by a few Halsted silk sutures. (5) Union of the gastric pouch with the jejunum. (6) Enteroanastomosis between the two limbs of jejunum, short-circuiting the biliary and pancreatic secretions at the level of the origin of the jejunum. (7) The remainder of the gastrocolic omentum is attached to the posterior wall and the abdomen closed.

Adrenalin and Its Uses in General Surgery.

Harry Gidney (*Indian Medical Gazette*) finds that "the clinical usefulness of Adrenalin is very great and extensive, and owing to its power of rapidly and effectively producing vaso-motor constriction, it is adapted to the treatment of all inflammatory conditions. The drug is also of extreme value in arresting hemorrhage during all surgical operations. It is indicated whenever and wherever any local hyperaemia exists, more especially in inflammations of mucous surfaces, such as those of the eye, throat, larynx, pharynx, urethra, bladder, nose, rectum, vagina, uterus, stomach, etc. It is used not only to stay hemorrhage when it exists, but also as a preventive or controlling remedy, given either internally or externally prior to an operation, so as to lessen the amount of bleeding during the performance of that operation. It is a non-irritant to mucous membrane unless when used too frequently and in excess.

"On reading the literature on the subject," says the writer, "I find that Adrenalin is admitted to be the most powerful and rapid cardiac stimulant and tonic we have, being chiefly used in cardiac affections, haematemesis, hemoptysis, hemophilia, hematuria, menorrhagia, post-partum hemorrhage, purpura, scurvy, etc. It is said to be the most rapid restorative in chloroform and other forms of anæsthetic syncope, and in such cases it is advisable to administer it intravenously."

The writer reports the results of several operations, major and minor, in which Adrenalin was employed. The first case was one of fracture of the vertex of the skull. As one of the larger branches of the middle meningeal artery had been torn there was profuse dural hemorrhage and capillary oozing which were controlled by the use of the 1-1000 solution. In the second case, one of hemorrhoids, profuse bleeding was checked by the rectal insertion of a plug of cotton wool soaked with Adrenalin Chloride Solution.

The third case was one of skin grafting in which the author tried pressure to stop the capillary bleeding. As the procedure was somewhat tedious he applied Adrenalin Chloride Solution with almost immediate cessation of all oozing, and what is usually a lengthy and sanguinary operation was converted into a short and comparatively bloodless one.

The fourth case, one of hemorrhage after the extraction of teeth, and the fifth, which appears to embrace the author's experience in a number of cases of epistaxis, afforded additional opportunity to test the hemostatic effect of Adrenalin.

In case VI. a post partum hemorrhage was checked by swabbing the uterine cavity with Adrenalin Solution, while the same happy result was obtained in a case of secondary hemorrhage following an operation for the relief of a mammary abscess.

He has found that the instillation of a 1-5000 to 1-200 solution of this drug reduces the inflammation and considerably cuts short the process of conjunctivitis. He usually applies it (diluted) over the inflamed parts by means of a soft camel's hair

brush. He always uses the preparation containing Chloretone, which has a decided local anesthetic action relieving much of the photophobia and pain. He is fully convinced of the power of Adrenalin to arrest or lessen the bleeding that arises from the cut ends of the iris after iridectomy. He speaks highly of its efficiency in chemosis, cataract operations, evisceration of the eyeball, operations for ectropion, symblepharon and trachomatous pannus.

He concludes that in all cases of minor surgery in which it is desired to arrest bleeding from any cut or exposed surface we have in Adrenalin a most useful, powerful and rapid drug—one that is non-poisonous, non-irritant and non-accumulative especially in operations upon the conjunctiva and eyelids.

Perforation of the Colon by Small Foreign Bodies.

Sutton (*Lancet*, Oct. 24, 1903) says that this may be of profound surgical importance, especially when the perforations are in close relation to an epiploic appendage. Needless to state that the vast proportion of those ingested are as easily egested, but the frequency of anal abscess serves to show that a small proportion at any rate does not make so fortuitous an exit. The appendix epiplorica is anatomically a fold of peritoneum filled with fat, its size depending on the amount of fat. It is easy to show that the serus investment of the colon reposes on a subserous tissue containing varying proportions of fat throughout that part of the circumference of the gut which receives the peritoneal investment. It is thus clear that there are proportions of the circumference of the colon where a sharp foreign body could penetrate and escape into the general peritoneal cavity, and the thinner the person, the greater the arc of the gut which would allow this form of penetration. In a fat person, on the other hand, there is a far greater extent of its circumference so protected by fat, into which the escaping body would be more probable to find its way and occasionally lodge in the appendix epiploica. The fatter the patient, the less likely is the foreign body to penetrate the general cavity, and the greater the chance of epiploic involvement. It is conservative to state that in some instances at least the cause of the tumors of the abdomen which disappear spontaneously after operation is a minute foreign body which has perforated the cecum, the colon, the sigmoid or the rectum. The manipulation of the parts at the time of operation serves to dislodge the foreign body and admit of evacuation and disappearance of the tumor.

Prophylactic Measures to Prevent the Spread of Vulvovaginitis in Hospital Services.

Koplik (*Archieves of Pedratrices*) says that hospital linen often carries the infection. When hospital diapers were in vogue in his service vulvovaginitis was quite prevalent, when they were discarded vulvovaginitis became at once infrequent. He believes that the ordinary laundry washing does not sterilize the linen, it only cleans on the surface and the steam does not reach all the interstices of the fabric. Every child is supplied with its own utensils, and no utensils, such as thermometers, catheters, combs and basins, are kept in a common room where they are likely to become mixed, but they are placed at the bedside ready for use. The thermometer is, after use, cleansed carefully and replaced in its own case at the bottom of which is a formalin tablet, the fumes of which constantly bathe the instrument.

If a patient is found affected with a vaginal discharge the bed is surrounded with a red bandage to warn the nurses of the presence of an infectious discharge. The bedding, rubber sheets, draw sheets and all the linen of the patient are marked V. D. (vaginal discharge). This linen is never used except in a similar case. Soiled linen is first sterilized in the hospital sterilizer before going to the general laundry. Bed pans, catheters, nozzles and douche apparatus are all marked with the name of the patient and kept apart from similar utensils in the ward. The nurse who attends the patient is not allowed to take the temperature or touch the genitals of any other patient in the ward.

Typhoid Fever vs. General Miliary Tuberculosis.

Dr. Cannady (*St. Louis Cour. of Medicine*) reports a case which illustrates the difficulty of making a differential diagnosis between these two diseases. He made a diagnosis of typhoid fever and held to his opinion until the post-morten showed him his error. The patient entered the hospital giving the usual history of a prodromal period of malaise for about three weeks, chilliness, backache, lassitude, loss of appetite, etc. On admission his temperature was 101 deg. F.; respiration, 28; pulse, 112; the tongue had a white coating, but was clean around the margins; the abdomen was slightly full and tender; he was inclined to be constipated; spleen was much enlarged and liver slightly so; there were sordes on the teeth and offensive breath; he had been coughing some but not expectorating. During the first week the temperature was slightly elevated; pulse 80 to 112; no rales. The second week respira-

tion was 24; temperature 100.8 deg. F. to 103 deg. F.; pulse 88 to 108. Third week, respiration 24 to 40; temperature 100 deg. F. to 104.2 deg. F.: pulse 100 to 128. Fourth week, respiration 28 to 50: temperature 101 deg. F. to 105.4 deg. F.; pulse 104 to 140. During the last two weeks the respiratory symptoms became more marked, with large mucous rales, distress over the left lower lobe and cough. Rose spots were absent throughout and there was no headache, delirium nor mental confusion, but toward the last there was subsultus tendinum and picking at the bed clothing. Both the Widal test and diazo-reaction were negative. The eyes were examined by five oculists, but only one professed to be able to see any choroid tubercles. The case plainly showed nothing very distinctive, but the following points militated against the diagnosis of typhoid fever: The irregularity of the temperature; the rather rapid pulse; absence of rose spots; absence of Widal reaction. Pulmonary complications are common in typhoid and the stool in this case did not differ from that of typhoid patients in the same ward. The patient died at the end of the fourth week and the author reported the autopsy in a subsequent paper. Tubercles were found plainly in abundance in the peritoneum, in the lung, spleen, kidney, pia mater, etc. It was a case of general miliary tuberculosis.

Appendicitis in Its Acutest Forms.

MacDougal (The London Med. Lancet, 1903) believes, from the evidence of hospital record and private experience, that the apparent marked increase in the frequency and severity of appendicitis and the greater tendency to recurrent attacks to be real rather than due to error in diagnosis. As to prognosis, the acuter the initial symptoms the greater is the gravity; while the rigor accompanying or immediately preceding the acute abdominal pain suggests the gangrenous form of the disease. The pain may begin in the sacral or in the left iliac region, but after a time is generally referred to the right iliac region, and is associated with a persistent or transient muscular rigidity. The hard, flat, board-like abdomen is of grave significance, yet a gangrenous or perforated appendix may be present and the abdominal walls soft, not tender, and moving with respiration but the full respiratory movement is apt to be curtailed. The abdominal fullness is best shown by measurement taken above and below the umbilicus. Opium tends to increase distention, while in the presence of peritonitis the girth may be lessened 2 inches by the occurrence of a stool. The pulse is a valuable guide. A quick, small pulse with a high, or, worse, a low temperature is significant. Yet suppurative peritonitis may be in progress with a fairly good pulse and normal temperature. Very high temperature in the beginning with a rapid small pulse indicates immediate interference. A pulse of 120 is ominous. The pulse and temperature should be recorded frequently in doubtful cases. Vomiting is not always present, but if severe and continuous, or if it recurs and be porraceous, spinach-like, in character, it is of prognostic value. The facial expression may determine the interference. Diarrhea is infrequent but may be present in very severe cases. The absence of peristalsis, as shown by the stethoscope, and the increase in leukocytosis may be valuable aids, yet in fulminating appendicitis it may be absent. Peritoneal effusion suggests operation. Simple colic of the appendix may cause the production of grave symptoms. Salpingitis, or pelvic peritonitis, is often difficult to distinguish from appendicitis. Typhoid fever may be ushered in with acute symptoms, but the leukocytes are not increased. The symptoms caused by perforated gastric or duodenal ulcer, or by the twisting of the pedicle of an ovarian tumor, may closely resemble appendicitis. Peritonism as immediately preceding menstruation may resemble appendicitis. As to the treatment, opium may be necessary. Aperients are dangerous. Operation is favorable in the acutest forms, and an incision made close to the anterior superior spine is preferred. Sponging is preferred to irrigation, and large sized drainage tubes with gauze wicks to gauze packing. Subcutaneous saline effusion is advocated.

Infective Endocarditis Mainly In Its Clinical Aspects.

Glynn (London Lancet) divides it into two classes: Rheumatic, due to the septic organisms of rheumatism; and septic, due to pyococci. In the former the temperature may be elevated, the spleen enlarged, and petechial and retinalhem orrhages may occur. The lesions tend to become fibrous tissue, losing their infective character. In true malignant endocarditis, due to the pus cocci, the infection tends to become diffused throughout the body. In most cases the onset of the disease is preceded by some debilitating condition, such as anæmia, etc. Bright's disease predisposes to infective endocarditis. In over half his cases there was a history of rheumatism, and chronic cardiac disease was found at autopsy in 83 per cent.

Anomalous forms of the disease may run a fatal course with little or no fever. Excessive sweating is common, as is diarrhœa. Vomiting, sometimes of an obstinate char-

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acter, may occur. Anæmia may be very marked, leading to a cachexia suggestive of pernicious anæmia. Albuminuria and hæmaturia are common, the kidneys being usually large, firm and congested. The spleen is almost invariably enlarged. The endocardial murmurs heard are in many cases not due to the recent endocarditis nor are they modified by it.

Most of the cases are of a chronic type, the symptoms lasting for months. The first symptoms noted are usually night sweats and diarrhœa; rigors are not common. Death may be due to cachexia, to pneumonia, or to cerebral embolism or hæmorrhage. When infective endocarditis develops in apparently healthy individuals, the septicæmic symptoms dominate over those of endocarditis. When it is a complication of heart disease with failing compensation, the symptoms are ill-pronounced and masked by those of the original disorder. Recovery is a rare event; the more acute the disease the worse the prognosis. The author has had no success with antistreptococcus serum.

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Internal Administration of Adrenalin for Control of Hemorrhage.

Dupuy, (Therapeutic Gazette):

Adrenalin has replaced suprarenal extract. It is the active principle of the gland, and has vasoconstrictor properties in their fullest extent. Dupuy has administered it in two cases of severe nosebleed in which the lives of the patients were despaired of. One of these patients had bleeding from the nose for three weeks. The bleeding part could not be located, and nasal packing gave no relief. Twenty drops of adrenalin was administered every hour for twelve hours, and then every two or three hours for forty-eight hours, and after that three times a day. From the administration of the first dose there was no more bleeding. Another patient with recurring nasal hemorrhages in which local treatment seemed of no avail was given twenty minims of adrenalin every hour. Bleeding ceased after the second dose. The nose in the meantime had been packed, and after removal of the packing there was no recurrence, though that had been the case at every previous dressing. The adrenalin was continued for four or five days in diminishing doses. Four months later there had been no recurrence of the hemorrhage. Excellent results are obtained from the administration of 15 to 20 minims by the mouth in pulmonary hemorrhage.

Hemochromatosis, with Diabetes Mellitus.

Beattie (*Journal of Pathology and Bacteriology*) describes the alterations found at autopsy in a case presenting the condition known as hemochromatosis. He makes the following statements.

1. The condition known as hemochromatosis is a distinct entity, and the diabetes associated with it is but a late manifestation, due to avery considerable destruction of the cells of the pancreas and an increase of fibrous tissue. The degenerations in the islands of Langerhaus may have a very important role in the production of the diabetes.

2. The degeneration in the cells of the liver, pancreas and other organs, and the cirrhosis, in part, are due to a toxic agent possibly derived from the intestine by way of the portal circulation.

3. The pigmentation is due partly to the degenerated cells not being able to perform their metabolic processes properly and partly to transportation from the liver and pancreas.

4. The cirrhosis is due mainly to the toxic agent causing the cell degeneration, but may be due in part to the irritation caused by the pigment.

Miscellaneous.

Rheumatic Pain and Fever.

In *The Medical & Surgical Bulletin* we find the following under the capation of "Acute Articular Rheumatism" by Dr. E. G. Evans: "Salol is the best intestinal antiseptic we have and Antikamnia as a pain reliever is, without doubt, unsurpassed, therefore, the combination of these two remedies in the form of the well known 'Antikamnia & Salol Tablets' affords us the ideal medicament for pain and fever in rheumatic conditions. Patients appreciate the fact when administering Antikamnia, you relieve the pain without giving them morphia, while the salol acts as a germicide and antiseptic, tending to ameliorate generally, the symptoms of the disease. Antikamnia & Salol Tablets (each tablet contains 2½ grs. Antikamnia and 2½ grains Salol) are best given in doses of two tablets every three hours until ten or twelve tablets are taken during twenty-four hours. The patient's bowels must be kept open and the diet should be light. Alcohol is contra-indicated and water should be freely and frequently given. The bed covering should not be too heavy, but warm. Cold water packs, as well as hot fomentations are very beneficial."

The Treatment of Nasal Catarrh.

Mannon (*Cincinnati Lancet-Clinic*) finds no danger whatever from the use of the nasal douche provided ordinary care is taken and a proper solution is employed. The charge that postnasal douching is prone to excite inflammation of the middle ear he does not find sustained. All leading specialists employ this method of treatment in the posterior as well as the anterior nares with equally good results. The doctor has had chronic nasal catarrh of many months duration yield to douching when heroically employed. Listerine to which a small quantity of bicarbonate of soda has been added is his main stand by. If hemorrhage is a controlling feature he uses instead a saturated solution of tannic acid to each ounce of which ten grains of carbolic acid has been added. When the tendency to bleed ceases he returns to the listerine solution. Treated in this way the most pronounced cases yield in three or four weeks and are not prolonged by complications or sequelæ.

While the COUGH May be

A symptom of any one of several pathological conditions, the cough which occurs during the COLDER MONTHS is usually due to catarrhal inflammation of the trachea or larger bronchi and although **only a symptom,** it **REQUIRES ATTENTION,** as otherwise it is likely to become, secondarily, a cause of more extensive trouble. A REMEDY is indicated which will act as a gentle but STIMULATING EXPECTORANT and one which will, by its solvent properties, render less difficult the expectoration of viscid mucous secreted by the diseased mucous surfaces. Many years of practical experience have proven that

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Wanted, More Clinical Data on the Therapy of Yeast.

Brewers' yeast as a therapeutic aid in treatment of diseases, has come to stay, even if it is not yet very generally known.

The yeast plant *Saccharomyces Cerevesiæ* has been vaguely recommended by old authors for boils, and in recent medical literature we find it indicated in a number of diseases, e. g., furunculosis, carbuncles, diabetes, tuberculosis, bronchitis, bronchopneumonia, enteroptosis, habitual constipation, cancer, &c., and so varied a list in fact, that it has been treated with the usual apathy exhibited towards new drugs, by the busy practitioners. This, I believe to be due in a measure, to the want of precise information respecting its doses, mode of administration, and detailed clinical reports on cases treated.

Dr. Julius Ullman is one of the few American physicians who has conscientiously studied yeast in this country, and his paper on the subject read before the Erie County Medical Society, May, 1902, and published in American Medicine (Oct. 1902), is one of the first exhaustive communications on this most interesting subject.

Quoting from Dr. Ullman's paper, the author asks:

From what deduction can we argue that brewers' yeast is of value?

The study of immunity has taught us that the natural resistance of the body is due to one of several causes: (1) The fixed and movable cells have an inherent property of secreting a substances proteid in character, which acts as a protective to the organism. (2) Metchnikoff's phagocytic action of the polymorphous leukocytes acting by (a) chemiotaxis and (b) by secreting a substance germicidal in character; (3) the body is capable of producing under stimulation of certain proteid enzymes, the antitoxines, as seen in the production of an antitoxic substance in diphtheria and tetanus; (4) when the body has lost its resistance, the presence of a secondary agent may retard or inhibit the primary infection, as Coley's toxine injection in sarcoma.

Yeast is rich in nuclein, and nucleinic acid is capable of producing a leukocytosis, thereby increasing the body resistance. Dr. Clintock, Novy and Vaughan have shown that the nucleins are powerful germicides and demonstrated that the germicidal quality of the blood is due to them. Yeast also increases the vigor of the central nervous system.

Yeast is present in gastric contents and feces. It has been proved that bacterial life, because of the ferments contained, is necessary to normal digestion, so that it may be inferred that brewers' yeast, is a powerful aid to digestion. It not only acts upon food, as contained within the intestinal tract, but its ferments in a soluble form, may become assimilated and have to do with the body metabolism.

Continental authorities have reported on the very remarkable action of yeast applied locally in leucorrhoea and gonorrhoeal vaginitis, which is explained by its phagocytic action, an antagonistic bacteriotherapy.

Brewers' yeast is not an ideal pharmaceutical preparation *per se* and this is perhaps one of the chief reasons why it has not been recognized as it should be in America. Its frothy appearance and odor (unless quite fresh) makes it repulsive, and on the Continent, where it is prescribed most extensively, it is never used in this form, but as the pure cultivated yeast cells of the sacchromyces cerevisæ in a desiccated form known as "Cerevisine." This represents in a concentrated form, (which can be kept indefinitely) the ferments, nuclein. nucleinic acid and phagocytic action which are essential to its therapeutic effects.

With such a pure product, careful medical reports should be reported through medical journals and at the county societies, in order to demonstrate the very remarkable properties which have so many applications and are distinctly on the lines of modern therapeutical progress.

Dr. Ullman reports some most interesting cases treated with yeast, in which he obtained good results in the Buffalo German Hospital, with tubercular patients in the more advanced stages, and similar reports should be forthcoming to familiarize the practitioner with this useful agent.

In a more recent communication from Dr. Ullman, he says: "As to the theoretical reason for the good effects I noted in advanced cases of phthisis, I should say that in those cases the hectic fever, night sweats and chills, are but the expression of the reaction resultant from the bacteria feeding upon the body tissue. By using yeast, a cell body analogous to the living cell is substituted for the organism attacking the living cell, it thrives upon the contents of the yeast cell, thus saving the body and as a result, there is no reaction, no chills nor so great night sweats."

De Backer, Brault and Tounier have used yeast hypodermically intermuscularly most successfully in diabetes, tuberculosis, malignant neoplasms and cancer and every day new applications for the display of its phagocytic properties are being discovered in

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Europe and there is every reason why this line of treatment should find imitators.

Cerevisine (desiccated yeast cultures) acts on gonococci, staphylococci and all pathogenic organisms (Prof. Doyen of Paris), and claims for its remarkable action in such almost incurable diseases as psoriasis, are being continually reported. What the practitioner wants, however, is detailed clinical reports of cases, referring to its use in otorrhoea, abdominal ulcer, ulcerative tonsilitis, gonorrheal vaginitis, etc.

Treatment of Gonorrhoeal Urethritis and Cystitis.

Schussler directs attention to the far-reaching and unfortunate results and the casual relation of gonorrhœa to many gynecologic diseases. The advance in therapeutic measures has not been so satisfactory as in many other lines, and so far nothing that can be regarded as a specific has been found. The principles of diagnosis and treatment have been improved upon, however, and some features added that are worth more than passing consideration. He points out that the diagnosis of gonorrhœa by a mere examination of the pus microscopically is not sufficient, and agrees with Lydston and Wolbarst, that such examination may be misleading, particularly by making a "smear" on a cover glass by pressing the glass against the meatus. He thinks a sterilized platinum wire is best for handling the pus. Care in diagnosis is made more important when it is considered that streptococci may invade the urethra and cause pathologic conditions, and, by the assertion of Chute, that gonorrhœa may exhist, with its manifold complications, without the slightest urethral discharge.

Local treatment of gonorrhœal urethritis has been unsatisfactory, and there seems to be a reversion to internal medication. The balsams were responsible for gastritis and sometimes nephritis, and it is hardly to be expected that these nauseous and noxious drugs will ever become popular again. The author has used salol and boric acid to bring about an antiseptic condition of the urine, and salol alone, and these seemed to give practical benefit in the earlier stages of the disease. The internal administration of medicaments to produce an antiseptic urine seems to be a very logical way of solving the problem of gonorrhœal treatment, and in cystogen we seem to have the factor which solves the problem by releasing formaldehyde and impregnating the urine with it. This makes the urine quite antiseptic, prevents the formation of pus, inhabits the action of gonococci or destroys them, prevents ammoniacal decomposition and renders non-irritating to the inflamed mucous membrane. In the treatment of chronic gonorrhœa, he uses weak solutions of permanganate of potash as an injection, and if the bladder is involved, washing this out with solution of boric acid, with deep injections of nitrate of silver. In subacute cases with irritation of the urethra, simple boric acid solution is employed and cystogen in administered internally, five grain tablet four times daily. This treatment has given satisfactory results, and in gonorrhœal cystitis, with urine shreddy, containing pus, this preparation is the most satisfactory he has known.—Chicago Clinic.

Stypticin in Gynecological Practice.

Stypticin, says Dr. Weissbart, is not as widely known as its demonstrated efficiency entitles it to be. While we possess good remedies for uterine bleeding, yet ergot and hydrastis often disappoint us where stypticin does not; moreover the latter produces no uterine pains. The field of usefulness is for stypticin a limited one, but within this field it is an excellent drug. In simple menorrhagia, in climacteric bleeding, in gestive hemorrhages of young girls, and in abortion after the uterus is empty, stypticin has given most satisfactory results. In myoma or polypus of the uterus, in hemorrhages during pregnancy, and in certain other conditions it has not been found of value. The author has used the drug, which is chemically cotarnine hydrochlorate and closely related to hydrastinine, in fifty cases. His experience coincides with that of others.

In three cases of climacteric hemorrhage the remedy acted promptly and without any by effects. In menstrual bleeding, without uterine or adnexal disease, stypticin gave good results in some, and poor results in other cases, while in menstrual hemorrhages of all other kinds the effect was excellent. However, no sedative action could be noticed, as alleged by certain authors. Good were the effects also in ten cases of reflex uterine bleeding (retroflexion of the uterus, parametritis, adnexal tumors). On the other hand, in bleeding due to fungous endometritis the drug had no effect, though once it acted well after curettage. In subinvolution in childbed, stypticin gave excellent results, and the same holds good of subinvolution after abortion, *after the membranes have been expelled*. In fact, the drug may be used for diagnostic purposes in such cases; when it fails to act, parts of the ovum have probably been retained. In imminent abortion it checked the bleeding without producing pains. These are the conditions which will be benefited by stypticin. As to dosage the author uses Merck's tablets, containing

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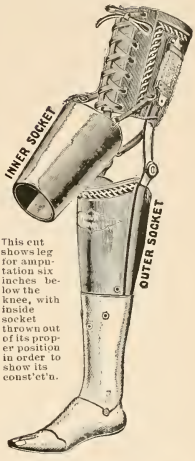

This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its const'ct'n.

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CLINICAL REPORTS TO PHYSICIANS

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0.05 Gm. (¾ grn.) each, and gives usually 2 tablets thrice daily for several days. No untoward effects were noted even after eight tablets had been taken daily. Some authors inject 2 Gm. (½ dram) of a 10 per cent. aqueous solution in the gluteal region with good effect.—Die Heilkunde, vii, No. 10.

Catarrhal Diseases of the Upper Air Passages.

Among the diseases of the upper air passages we have first, two varieties, acute nasal catarrh and chronic or naso-pharyngeal catarrah. In the latter sub-division we have the atrophic and hypertrophic varieties and the form which is a mere manifestation of some general systemic disease, i. e., the ozaena of syphilitics. The first two varieties are merely different degrees of the same process. The nasal membrane after a series of acute attacks becomes chronically inflammed with a muco-purulent discharge. The membrane is congested and covered with a thin muco-pus. In this form treatment is most effective. But as the disease progresses the membrane becomes hypertrophied and a chronic tenacious mucus is secreted. This hypertrophic form is generally accompanied by a stenosis of the upper air passages, especially on the convex surfaces of tubinated bones, which eventually becomes enlarged and there is a constant dropping of mucus into the back of the throat. Still more chronic is that atrophic catarrh where the mucosa is atrophied and the secretion is dried up.

The treatment of these cases is simple if seen at the outset. The principle of cleanliness underlies the whole thing. The patient should be supplied with some good alkaline solution such as Glyco-Thymoline, and instructed to douche the nasal passages twice daily. This with proper hygienic managing of the case is all that is necessary in the majority of the cases, seen at the beginning of their chronicity. If the follicles are hypertrophied they may be touched up with the Galvano-Cautery. This especially applies to the naso-pharynx.

The best form of douche for use in these cases is the Birmingham. It is easy for the patient to use this douche and its size makes it convenient to carry. It is a bad practice to use a syringe as too much force may force the discharge into the frontal sinus and cause unpleasant complications. If the turbinated bones are greatly enlarged, an operation for their removal is necessary before treatment can be effective.

Clarence G. Clark, M. D., Assistant Surgeon to Presbyterian Hospital, O. P. D., New York. Formerly Assistant Surgeon to New York Hospital, O. P. D.

For use in the douche I have found Glyco-Thymoline to be an excellent preparation. It has the advantage of being alkaline and at the same time it is pleasant to use and does no harm if swallowed. The following cases will illustrate the treatment of these cases:

Case I. Mr. A. B., age 35. Came to office on June 12th, 1902, complaining of nasal discharge. History of several acute attacks of ordinary coryza which gradually became more lasting. Is a heavy smoker and inhales smoke.

Found nasal membrane congested and covered with tenacious mucus. Turbinated bones slightly hypertrophied.

Diag. Chronic nasal catarrh, becoming hypertrophic.

Treatment Prescribed:

Ac. Tannici,	gr. xx
Ac Sulph. Arom	M. xxx
Glyco Thymoline,	ʒ iii
Aqua dist. q. s.	ʒ viii

and instructed patient so use same in Bermingham Douche twice daily, first cleansing the nasal membrane with a salt solution ʒ i to quart of warm water.

As the discharge became less tenacious and less profuse I stopped the astringents and had patient continue with Glyco-Thymoline in proportion of one part in four of water. With this treatment the discharge ceased in three weeks and patient was discharged with instruction to continue using the douche daily.

Case II. Miss J., age 24. Came to office July 10, 1903. Has acute coryza, running from nose and eyes. Discharge, thin mucus. Alae nasi excoriated. History of frequent previous attacks.

Diag. Acute Coryza.

Treatment,

Atrophin Sulph.	gr. 1-10
Pulv. Ipecac et Op.	gr. iv
M et ft pulv. no	viii

Sig. One every four hours.

also instructed the patient to douche every three hours with

Glyco-Thymoline,	ʒ ii
Aq. q. s.	ʒ vi

this latter to be used in Birmingham Douche.

This attack subsided in ten days and patient continued using the douche daily thereafter and up to the present time has had no similar attacks. I lay this to the constant cleansing of the nasal membrane.

The Clinical Value of Iodipin.

Dr. Edward Thumen says that a comparison between iodipin and the alkaline iodides will result in favor of the former, for even after prolonged iodipin administration we do not meet with those disagreeable effects which are sure to make their

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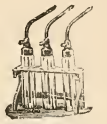

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A trial in combination with Tinct, Catechu, Tinct, Kino, Tinct, Rhubarb, etc., for the above-mentioned disorders will give most gratifying results.

For CHOLERA INFANTUM, **LAC-BISMO** undiluted is a safe, reliable and efficient remedy.

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LAC-BISMO is considered a specific for ulcerated surfaces, chronic inflammation of mucous membranes, suppurating burns, etc.

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Bismuth and its salts are insoluble, except in strong acids. This fact precludes the possibility of administering them in solution. As administered they form an unsatisfactory and unsightly mixture from an æsthetic standpoint. From a therapeutic standpoint the objections are more serious.

You have noticed, especially where a ℞ has been allowed so stand, that a solid precipitate is formed, which is very difficult to disintegrate. This fact renders the dose of the medicament uncertain.

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appearance after a more or less prolonged period of potassium iodide, for instance. Among these undesirable effects may be mentioned a catarrhal condition of the gastro-intestinal canal and loss of weight. With iodipin not only is there no loss of weight, but there is an actual increase. And this is an important factor in syphilitic or otherwise run-down patients who are in need of the iodides. The author illustrates the good effects of iodipin by brief notes of a few cases. Cases of syphilitic ulcer of the larynx improved rapidly under the subcutaneous administration of the drug. The difficulty in swallowing disappeared rapidly, and as a rule the ulcers healed after the tenth injection. Large serpiginous ulcers of a specific character also healed rapidly under iodipin, hypodermically. It also gave good results in two cases of simple hypertrophy of the thyroid gland. In inflammation of the middle ear, the author orders 10 drops of iodipin rubbed in thoroughly around the ear; and he puts a piece of cotton, with 8 drops of the medicament, into the ear; the inflammatory phenomena disappear rapidly and the results are very Good.—Allg. med. Central-Zeit, No. 34, 1903.

According to Duhot (Annales de la Policl. cent. de Bruxelles), the best method of administering iodipin is the hypodermic one. It can be given in 10 Gm. (2½ dram) daily doses for thirty or forty days in succession, though it is perhaps better to make the injections every other day. The gluteal region is the place of choice for the injections. It is not advisable to use an ordinary hypodermic syringe, as the injections are too tedious and painful; a syringe with a large barrel and a large caliber needle should be used. The author says that iodipin is not destined to replace completely potassium iodide in the treatment of tertiary syphilis but it does fill an important indication when the latter is not tolerated.

Another Report on Veronal.

It is safe to say that few, if any, of the synthetic remedies introduced within recent years have excited so much interest as has the latest hypnotic, veronal. Since its introduction a few months ago a large number of papers have appeared representing the reports of trials at various hospitals and institutions. The reports uniformly go to show that in veronal we have a safe and reliable hypnotic, practically free from by-effects; producing no bad effects on metabolism, pulse, respiration, urine, etc. The latest report that has come to our notice is by Privat-Docent Dr. L. W. Weber, physician-in-chief to the psychiatric clinic at the University of Gottingen (Deut. med. Woch., 1903, No. 40.) The drug was employed in a variety of conditions: in simple insomnia, in conditions of agitation of melancholics, in epileptics, in maniacal conditions, etc.

The author reaches the conclusion that in veronal we possess a valuable addition to our therapeutic treasury. It is to be recommended as a sedative in all conditions of motor agitation, especially those caused by hallucinations. The remedy produces its effect with certainty in one to two hours and lasts for a considerable period, without becoming cumulative or materially weakened after prolonged use. It often proves effective where other hypnotics fail. Disagreeable by-effects on the respiration, heart action, or digestion have not been noticed.

That Petroleum has unique influence upon certain morbid conditions of the animal economy is not a matter of theory only. It is a fact that has been conclusively proven by elaborate, scientific experiments. Clinical experience has likewise demonstrated that Petroleum is universally beneficial in the treatment of bronchial and pulmonary complaints and that in tuberculosis it is by far the most effective remedy. Given in the form of Angier's Petroleum Emulsion it has a well defined, specific, palliative influence upon the symptoms of the disease. It maintains normal nutrition and actually compels the digestion of food by facilitating and expediting the process of digestion and assimilation. In short, it supplants tissue waste by tissue reconstruction.

Each fluid ounce of Angier's Petroleum Emulsion with Hypophosphites contains thirty-three and one third per cent of specially purified crude petroleum, nine grains of combined Hypophosphites of Lime and Soda, with chemically pure glycerine. It is a perfect Emulsion. Placed under the microscope, physicians can easily verify this point for themselves. They will find the oil globules very minutely and evenly subdivided.

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Ex. Cascara Sagrad, fl.	1 oz
Tongaline,	6 oz

M. Sig.—A teaspoonful every two to four hours.

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Listerine is a swift and sure destroyer of infusorial life; it prevents the various fermentations, preserves animal tissues and inhibits the activity, growth and motion of low forms of vegetable life: hence Listerine may be relied upon to destroy the activity of the living particles which constitute contagion whenever brought into intimate contact therewith.

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Headache and Backache of Menstruation.

So overwhelming is the majority of women and young girls today, who suffer from "headache and backache" as the frequent precursor and constant accompaniment of the menstrual period that there is considerable danger of our being forced to the unwise and unsatisfactory conclusion that such symptoms may be but normal and physiological; and, if this view should be accepted, the physician doing so is in further danger of being led to the course of offering only such temporary relief as may be obtained from the use of sedatives and anodynes. Naturally, he will consider that his duty is done if he succeeds in obtunding the pains during the time in which they necessarily occur, thus enabling the patient to pass through the ordeal with greater ease and comfort.

But experience has abundantly shown that the victims of this fallacious mode of treatment sooner or later become slaves to the calmative effects of the drugs employed; and, not only are they afforded no really permanent benefit, but are continually rendered more sensitive to their sufferings. In short, the locking up of the secretions and retention of waste solids, resulting from the frequent taking of analgesic medicines, invariably aggravate the abnormal condition of affairs, which has been at the base of their troubles from the outstart.

There are to be noted, of course, varyign degrees of intensity in the sufferings of these women,—e. g.,from the two or three days of slight frontal or temporal headache to the week of intense *migraine*, with its accompanying vertigo distressing eye symptoms, and gastric disturbances. In the former class of cases, the processes of elimination (which are so essential at this time) are almost equal to the necessities of the occasion, and, were it not for a slight constipation or other excretory check, not even the temporary headache and depression would be noted; in the other, however, the sewers of the system are more effectually blocked, the circulation becomes charged with obnoxious waste, and the serious chain of symptoms arises which indicates the retention of this debris in the blood and which we now believe to be the true source of the evils we are considering.

To the painstaking study and investigations of Haig, of London, more than to those of any other authority, are we indebted for the knowledge which we now possess concerning the influence of uric acid in the causation of disease; and many disordered conditions of the system which were hitherto but little understood are now attributed to this factor while the therapeutic results founded upon this knowledge have been very gratifying. It is now generally recognized and understood that migraine is caused by the retention of this substance in the circulation, and that the solvent and eliminative mode of treatment, which aims at its removal, is the only one which promises or effects a really permanent cure.

We are indebted to Haig for the important discovery, that, two or three days prior to menstruation there is a marked diminution in the excretion of uric acid, that the latter substance is retained in the circulation until the second or third day of the flow, when it is excreted in greatly increased amount. This is what normally happens when the organs of elimination are healthy and active and perform this added duty properly, the only symptoms to indicate this temporary retention being a slight headached and depression of spirits at the beginning of the period. But if, for any reason, elimination is imperfect, as is so frequently the case, uric acid remains to accumulate and we have all the disagreeable symptoms which are known to arise from its presence in the capillaries in excess.

It is evident, that in order to avoid this troublesome condition of affairs, it is the duty of the physician when confronted with such a case, to aid the patient's organs of elimination in removing this waste substance from the body at the time when such aid will prove most efficient—i, e., just previous to and at the beginning of menstruation. In short, it would seem that the increased work demanded of liver, kidneys and bowels, at this interesting physiological period, is often greater than can be satisfactorily performed, and, as a result of this partial failure, we meet with the many symptoms indicative of the presence in excess in the blood, of waste toxins of the uric acid type.

To illustrate the value of the *solvent and eliminative* mode of treatment in these cases, and the marked therapeutic advantages it possesses over the older palliative means usually employed, we cite briefly here the clinical outlines of a case of menstrual "sick headache" recently treated by both methods; to wit:

Mrs. W., aged 32, a slender brunette of decided nervous temperament, married and mother of four children, had for several years complained that for three or four days prior to each monthly period, she began to suffer intense headache, which warned her of her approaching sickness, and which necessitated complete withdrawal from all household duties. She was

Charles A. Dunham, M. D., Jacksonville, Fla.

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obliged to retire to a darkened room and remain in bed, while absolute quiet reigned. At the beginning of the menstrual flow, gastric disturbances arose, (vomiting, etc.), the head symptoms increased in virulence, the entire surface of the body became cold and the patient relapsed into a semi-comatose condition alarming to her friends as well as to her physician. Vigorous rubbing of the limbs and body was always resorted to as a necessary means to restore what appeared to be "suspended animation." Brandy and the usual restoratives were applied.

The patient would recover from one of these attacks or seizures, remain in a very weakened condition for a short time and suddenly relapse into another attack lasting for an hour or two. After remaining ill in this way for a week, the patient, upon the gradual lessening of the menstrual flux, would cease to have further attacks, but still remain very weak for two or three days. Upon recovery, she went about her household duties as usual for a fortnight, only to repeat the same experience at the coming monthly period.

The treatment in this case had consisted in the taking of analgesics (antifebrin, etc.,) at the onset of the headache, drugs of this character seeming to be her only refuge from the intense suffering at this time. After the commencement of her "spells," attention was directed solely toward restoring consciousness and feeling and an impeded circulation. It was evident, however, that some rational course of treatment should be adopted between the attacks to prevent their recurrence, as the patient was extremely nervous, and her general physical condition undermined. The chief symptoms of which she complained betweentimes were constipation and occasional headaches.

After several years of this suffering and many changes in the treatment at the hands of various physicians who had been consulted, the diagnosis of migraine was made and the solvent and eliminative mode of treatment adopted. Instead of obtunding the pain by means of drugs which paralyzed nature's efforts at eliminating toxic waste, it was decided to directly aid in these efforts by stimulating the natural processes of excretion and employing a solvent which would render removal of the urates prompt and certain; for it was now believed that the serious symptoms in this case were entirely attributable to the retention of colloid urates in the circulation and consequent choking up of the capillaries.

A day or two prior to the time of the expected headache, she was given, the first thing upon arising in the morning an hour before breakfast, a teaspoonful of thialion dissolved in a glassful of hot water, which dose was repeated at two-hourly intervals until four teaspoonfuls had been taken. This caused copious evacuation of the bowels and well marked diuresis. For the ensuing three or four days, only the single morning dose was taken. Though menstruation had now begun, yet the alarming "spell" which had always hitherto accompanied it, had now degenerated into a slight headache and some vertigo. She passed through the dreaded week with nothing more serious.

The same plan of treatment was adopted at the next period, while occasional doses of the solvent were taken in the interim sufficient to cause fairly free movements of the bowels. The result was even more satisfactory than before. A mild headache was the only symptom. This plan has since been followed regularly for the past three years, and, during all that time, the patient has failed to suffer one of her old attacks—passing through the monthly ordeal with comparative ease and comfort.

The Treatment of Exophthalmic Goiter.

In the treatment of goitrous patients two indications present themselves: The first concerns us with such therapeutic measures as are indicated to meet the symptoms. The second indication comprehends the means at the disposal of the physician for bringing about resolution in the thyroid gland.

Moderate exercise is indicated and essential, but when this is overdone the patient is made worse. These patients should avoid lifting or the carrying of heavy weights. When the patient is anæmic some eligible preparation of iron is indicated and should be employed.

Very often goitrous patients have an extreme degree of nervousness. In instances of this character we should give the bromides in such quantities as will bring relief. Often valerian will answer this purpose admirably.

Digitalis and strophanthus may be required to regulate the heart's action. It is well, however, not to rely too implicitly on these drugs. They are often most prejudicial, and rarely can they be relied upon.

To establish resolution no remedy has found such favor with the profession as iodine. Thyroid extract has been tried, but its employment on a large scale has not justified the belief that it is more valuable than iodine In fact the preference is

---

Charles W. McIntyre, M. D., Consulting Physician to St. Edward's Hospital, Secretary of Floyd County Board of Health, etc., New Albany, Ind. –From the Medical Bulletin, Philadelphia, November, 1903.

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that RESINOL OINTMENT is the best local application for Eczema and kindred skin diseases, and as a dressing for burns and other traumatic inflammations it is simply superb. The itching and burning of Pruritus Ani, Pruritus Vulvae, Proctitis, Itching and Inflamed Piles, Marginal Eczemas and Fissures, yield to its soothing influence as if by magic.

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In *Medical News*, August 1, 1903, Dr. J. Leffingwell Hatch, of New York (formerly lecturer on Bacteriology and demonstrator of Morbid Anatomy in the University of Pennsylvania), writes of Thiocol: "My own experience with Thiocol has been quite extensive and varied. * * * In tuberculosis the night-sweats were stopped almost from the first; the fever was markedly reduced; expectoration was made easier and less purulent, while the cough became less persistent and annoying."

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Clinical Reports to Physicians

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given to iodine by the great mass of the profession, and the evidence in its favor may now be said to be overwhelming.

Much prejudice has, however, been engendered against iodine because we have not always seen it exhibited in a form that will insure its action and still avoid its unpleasant effects.

I have for some time employed Burnham's soluble iodine, this being a nonirritating, free iodine that is readily soluble in the gastric juices, and which enters the system unchanged. I prefer this preparation to the iodine of potassium and other similar agents for the above reason and because its action is more certain. To 1 or 2 drachms of Burnham's soluble iodine enough water or simple syrup is added to make 4 ounces. Of this a teaspoonful is to be taken three or four times daily until the enlargement of the thyroid has disappeared.

In cases seen early we shall have the pleasure of obtaining good results if the treatment is persevered in by our patient. Of course, this statement does not apply to those patients whose physical condition is below par to a decided extent or who have some associated disease.

Case I.—M. S., aged 13. This girl came to me for treatment of goiter. Her thyroid gland was considerably enlarged, but she had no appreciable nervousness nor cardiac distress. I told the mother that I thought she would get well and recover perfectly if she would take the treatment. She was accordingly put on iodine in the manner already described. She took a teaspoonful an hour before meals. She persevered in the employment of the remedy for four months, at the end of which time she was well. She did not have iodism at any time.

Case II.—Mrs. S. Q., aged 29. This lady had a goiter of appreciable size developing, and she was in the greatest distress of mind as to its possible outcome. She also was put on Burnham's soluble iodine and made a complete recovery in three months. She did not experience any gastric or other untoward effect from the treatment.

Case III.—Mr. J., aged 20. This young man was of a nervous temperament, and now had a goiter that had grown to such size as to make its presence visible. He was very nervous and was low spirited. He was given valerian and bromides to allay his nervousness, and Burnham's soluble iodine was taken for four months. This patient also recovered entirely.

Consideration for space will not permit of a further citation of cases.

Comparative Effects of Colchi-Sal and Other Modern Agents in Gout and Rheumatism.

No practitioner, however busy, can afford to ignore the more modern theories on the cause and treatment of gout and rheumatism. While many new synthetical agents claim merit on theoretical grounds, these claims are at best only partially proved, and we must still place most reliance on diet, saline purgatives, and capsules of colchisal; relieving acute symptoms by external applications of anodynes such as betul-ol, which are easily absorbed cutaneously.

An article published in the British Medical Journal (31st Jan. 1903), entitled "Influence of modern drugs on metabolism," by W. Bain, M. D., of Harrogate, is well worth reading in detail. The author made comparative tests with a view of ascertaining the influence of several modern drugs on metabolism, and gives detailed tables of cases of chronic gout varified and controlled in a hospital by Drs. Barrs and Telling. The results are most interesting and valuable for comparison, showing that which occurs in the urine, after exhibition of lithium benzoate, tartrate of piperidin, piperazin, lysidin, urotropin, Sidonal, and colchi-sal capsules. The quantitive analytical tables show, not only what the excretions were during several days exhibition of the drugs, but also before their exhibition.

The diet in all the cases was the same.

Dr. Bain's summary of observations showed:

(1.) There was an increase in albumen coincident with the development of a subacute attack of gout.

(2.) A preponderance of serum globuline over serum albumen was observed.

(3.) There was present in the blood, the peculiar leucocytes described by Chalmers Watson.

(4.) Lithium benzoate and urotropin were ineffective as regards uric acid excretion.

(5.) Tartarate of piperidin, piperazin, lysidin and sidonal, in the order named, showed a slight but an increasingly augmenting effect on the uric acid excretion.

(6.) The excretion of uric acid was diminished during the administration of colchisal, and the conjugated sulphates increased.

(7.) The solvent action of tetra-ethyl-ammonium-hydrate on sodium bi-urate, probably depends upon its alkalinity.

These experiments therefore confirm the opinion of other observers, viz.: that these drugs had no appreciable solvent properties on the uric acid secretions, already de-

C. A. Wilson-Prevost, M. D., of the Hospitals of Paris.

THE VALUE of TERRALINE

in Bronchial affections is now too firmly established and generally acknowledged to require further consideration here, but for the large class of cases in which persistent, hacking cough—especially at night—is a pronounced symptom, we are now enabled to offer a most effective combination in

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whereby in addition to the lubricant, antiseptic, expectorant, waste checking, tissue-building properties of purified petroleum (Terraline), the sedative effect of Heroin, the most effective and harmless of all antitussics, is obtained.

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posited in the tissues, on which the theoretical value of all except colchi-sal is based, but the author remarks that the administration of *colchi sal capsules appeared to give the patient more relief than any of the other remedies.* When we remember also that Weisz's experiments go to show that there is in the blood itself, a normal uric acid solvent which prevents its precipitation and that even the blood of gouty patients yields a serum which will dissolve from 10 to 40 times as much uric acid as water, we can hardly avoid the conclusion that colchi-sal either inhibits the formation of an excess of urates, or prevents their precipitation, by stimulating the natural uric solvent in the blood.

It is the retention in the tissues and increased production which causes the blood to become saturated with urid acid, and as we are able to control the formation of the nucleins ingested from food by diet, we have, in colchi-sal, the most logical of all treatments.

Colchi-sal may not increase elimination of uric acid to any appreciable extent, but its production (where diet is attended to), is diminished. All who have used colchi-sal remarked how rapidly relief is effected when the capsules are given on Laborde's principle.

Laborde was the first to suggest the administration of frequently repeated fractional doses of colchicum, and owing to the rapidly eliminating properties of the methyl-salicylate compound of the alkaloid colchicine (colchi-sal), it does just what we require, viz.: *relieves painful symptoms and prevents precipitation of the bi-urate.*

Beside this peculiar property of stimulating the uric solvent and prophylaxis, colchi-sal has the following remarkable physiologic properties necessary to healthy metabolic activity.

(1.) It has sedative properties, relieving acute pain.

(2.) It liquifies and stimulates the flow of bile, thereby inducing advantagous laxative effects.

(3.) It is slightly diuretic, and eliminates waste products and promotes tissue oxidation.

(4.) It combats congestion and facilitates resolution of inflammation, owing to increased antiseptic conditions of the blood, which takes up the methyl base and liberates free salicylic acid in the presence of a lesion caused by gouty deposits, and sterilizes pus formed from broken down cell tissue.

(5.) Increases circulation *in loco*, thus removing the arthritic swelling and the hyperemia around the articulations together with the products formed by the morbid processus.

Colchi-sal is not a heart depressant, and is free from the untoward effects of the colchicum preparations or the alkaloid colchicine; while, where there is a mixed gouty and rheumatic condition, the small doses of the salicylic radical do more than five times the same weight of sodium salicylate.

The patient should be recommended to have the prescription dispensed by a reputable pharmacist, as substitutes which are colored green in order to imitate colchi-sal capsules are often given. The best way to avoid this, is to *prescribe original bottles of 50 or 100 capsules*; as, while the substitutes may bear on the label the original formula, this published formula merely indicates the basis of colchi-sal, without entering into the manufacturing details, on which the physiologic effects largely depend.

Glyco-Heroin, Smith, Compared With Codeine and Morphine.

Aside from the after-effects of Morphine, such as nausea, general lassitude, vomiting and vertigo, it has the disadvantage that the patient becomes readily addicted to it and chronic morphinomania occurs, especially in neurotic persons.

Codeine in its physiologic action resembles narcotine, though the narcotic stage is not so much pronounced. When administered in small doses intestinal peristalsis is promoted, while in large doses it produces diarrhœa in consequence of complete relaxation of the intestinal muscles, owing to paralysis of the nerve centers governing the intestines.

The sedative action of Codeine is unreliable.

Expectoration is not promoted by Morphine or Codeine, while Glyco-Heroin (Smith) acts as a stimulant to the respiratory center and stagnation of the secretions is excluded.

Comparative doses of Glyco-Heroin (Smith) and Codeine show the latter to produce nausea, vomiting and vertigo, while these symptoms are absent during the administration of Glyco-Heroin (Smith).

Unlike Morphine preparations, Glyco-Heroin (Smith) does not constipate.

Glyco-Heroin (Smith), as a Respiratory Sedative is decidedly superior to the preparations of opium, morphine, codeine and other narcotics, as it is devoid of the toxic or depressing effects, which characterize the latter, when given in doses sufficient to reduce the reflex irritability of the bronchial, trachæl and laryngeal mucous membranes.

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Unexcelled as a diuretic and cardiac tonic. It contains tinct. digitalis 10 per cent., about twice as much tinct. strophanthus, the alkaloids of squills, scillipicrin and scillitoxin, and oxysaponin from herniaria glabra. Causes intense diuresis without severe catharsis, without vomiting or other annoying symptoms. Results are extremely favorable and of long duration. Alleviates frequency and severity of attacks of angina pectoris. Dose: 10-15 drops.

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Oleate of sodium. Stimulates activity of liver cells, promotes flow of bile and ready expulsion of biliary concretions. A cholagogue indicated in cholelthiasis, prompt and energetic in its action. Recommended by Gerhardt, Hoppe-Seyler and others. May be given continuously without harm. Dose: 4 grains.

Triferrin

Paranucleinic acid iron, made from cow's milk. Contains iron, phosphorus and nitrogen. A food, hematinic and nerve tonic. Increases amount of iron in the liver three-fold. Soluble, easily administered and readily assimilated without alimentary disturbance. Uninfluenced by the gastric juice, it is absorbed after the action of the alkaline intestinal juice. Dose: 5 grains. Also in tablet form with chocolate, 3 grains; triferrin, 4½ grains. Triferrin is also furnished in solution as Liquor Triferrini.

Antitussin.

Difluordiphenyl ointment 5 per cent, especially serviceable in whooping cough, since it relieves both the severity and the frequency of the paroxysm. Dose: 5 grams externally. Sample to physicians on receipt of 25 cents for 20 grams; 50 cents for 40 grams.

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Fluorphenetol ointment 5 per cent (lanolin, vaseline base), most prompt and powerful in relieving pain, whether of neuralgic or of rheumatic origin. Dose: 5 grams externally. Sample to physicians on receipt of 25 cents for 20 grains; 50 cents for 40 grains.

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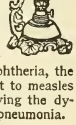

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The thirtieth annual meeting of the Mississippi Valley Medical Association, will be held at Cincinnati, O., October 11, 12, 13, 1904. Dr. B. Merrill Ricketts has been elected Chairman of the Committee of Arrangements. The following are the officers of the Association elected at Memphis:

President, Edwin Walker, M. D., Evansville, Ind.

President-elect, Hugh T. Patrick, M. D., Chicago, Ill.

First Vice-President, Bransford Lewis, M. D., St. Louis, Mo.

Second Vice-President, Geo. W. Cale, Jr., M. D., Springfield, Mo.

Secretary, Henry Enos Tuley, M. D., Louisville, Ky.

Assistant Secretary, S. C. Stanton, M. D., Chicago, Ill.

Treasurer, Thos. Hunt Stucky, M. D., Louisville, Ky.

The following resolution was offered by Dr. S. P. Collings, of Hot Springs, Ark., at the Memphis meeting:

Whereas: The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures, therefore, be it

Resolved: That it is the sense of the Mississippi Valley Medical Association that measures be taken by Boards of Health, Boards of Education and School authorities, and where possible, legislation secured, looking to the examination of the eyes of all school children, that disease in its incipiency may be discovered and corrected.

The best for fortifying the systems of those susceptible to diseases, such as Colds, Grippe and Pneumonia, so prevalent during the winter months, is Extract of Red Bone Marrow, a palatable and highly nutritious combination of narrow cells, nucleins, hemoglobin cap. glycerine. The Tuberculous should take this preparation regularly because it is a great flesh and blood maker and quickly repairs wasted tissue.

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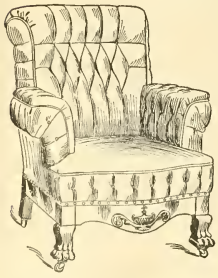

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The Charlotte Medical Journal.

VOL. XXIV. CHARLOTTE, N. C., FEBRUARY, 1904. No. 2

The Treatment of Desperate Cases.*

By Southgate Leigh, M. D., Norfolk, Va., Surgeon in Charge The Sarah Leigh Hospital, Visiting Surgeon Norfolk Protestant Hospital.

How often do we remark on the uncertainty of life! The more we study Anatomy and Physiology the more profoundly are we impressed with the truth of the saying that "Life hangs by a thread." The intricacies of the mechanism of the human organism make us marvel that man continues to live, make us wonder that his spark of existence is not extinguished by even the minor ailments that flesh is heir to. What a wonderful misterious power it is that keeps this delicate mass of machinery in motion!

Life is uncertain! *But death is also uncertain!* If we doctors realized the truth of the latter as fully as we do of the former, could we not do better for our patients? Is it right for us to say that a sick man is bound to die? Have we supernatural sight that we can foretell the death of our patient? How often do we come across people who tell us that they were very ill and their doctor "gave them up," but they got well in spite of his predictions! Is this right? Have we a right to thus condemn our fellow-man to die?

But the practical side of the question is as to whether we can do our best for a desperately ill man if we feel that his case is hopeless. There is hardly a practitioner here but who has at some time in his experience come across a case that seemed to his human mind to be hopeless, and yet almost miraculously recovered. While it is true that only too often human life ends suddenly and apparently from slight causes, yet man shows a tenacity for life that at times is inconceivable.

I say again that while Life is uncertain, yet Death is also uncertain, and I do not believe that the wisest of our profession has the right to say that a man must die. I believe rather that we should expect our most desperate case to live until he is already dead. *Our hope for his recovery will stimulate us to extreme measures to save his life.*

Gentlemen, I do not believe that the members of our profession work over the desperate cases as they should do. We have at our disposal many life-saving remedies, which if promptly and persistently employed unquestionably do at times work wonders.

In nearly all extreme cases, both medical and surgical, heart weakness is the condition which we have chiefly to combat. Our principal reliance is, of course, *Hypodermic Stimulation.* This method of administering powerful, strengthening remedies should be resorted to, not only when the stomach is unable to retain them, but also when there is doubt as to the absorptive power of the stomach, and in those extreme cases which demand immediate effect from the drugs. Strychnia, Sulphate or Nitrate, stands first in our list of heart stimulants. In an emergency it may be given in very large doses, but when the treatment has to be continued for any length of time it is best to give not more than Gr. 1-30 every 3 or 4 hours. Caffeine and Sodium Benzoate comes next in efficiency. In three grain doses it has much the same effect as Strychnine. Sparteine Sulphate in half grain doses has a more rapid action than either of the first two, but its effect is not so lasting. It has the advantage of stimulating the kidneys, but the disadvantage of slightly irritating the subcutaneous tissues. Digitalis is practically not a heart strengthener, but rather a regulator of the heart's action. It should be used when the pulse is rapid or irregular. The tincture is too irritating for constant hypodermic use, and should only be employed in emergencies. A fairly good substitute is Digitalia in Gr. 1-100 doses. Nitroglycerine is of doubtful value on account of its lowering the blood pressure. It is useful, however, in bad kidney cases. It will absorb readily and quickly through the mucous membrane of the tongue. Whiskey or Brandy given hypodermically in emergency cases acts promptly. It is too irritating for continued use. To do any good at least six syringes full should be given.

In using subcutaneous injections for any length of time considerable attention must be paid to details. The best parts to use are the outer surface of the thigh and the posterior surface of the arm. The injections should be made deep. The needles, syringes and skin must be sterilized. In a case requiring prolonged hypodermic stimulation the following scheme could be followed for a considerable time:

> Strychnia S. Gr. 1-40, every 3 or 4 hours;
> Caffeine and Sodium Benzoate Gr. 3, every 3 or 4 hours,

alternating so that one would come every 1-½ or 2 hours.

*Read before the Seaboard Medical Association, Dec. 16, 1903.

Sparteine S. Gr. 1-2, every 3 hours if needed.
Digitalia Gr. 1-100, every 3 or 4 hours for pulse 115.

I cannot lay too much stress on the value of using a number of heart stimulants rather than a very large dose of a single one, such as Strychnine. If a larger dose than Gr. 1-30 of this drug is continued for any lenth of time, irritating effects on the nervous system are apt to be shown.

Rectal stimulation and feeding are necessary in those cases where the stomach will not properly perform its function. Normal salt solution given through the long rectal tube is useful in various conditions, especially in cases of hemorrhage. It is readily absorbed into the circulation. After depressing operations we frequently give Whiskey in one or two ounce doses in the salt solution. In cases of prolonged nausea where the rectum has to be used for a considerable length of time, great care has to be exercised in training the bowl to perform its new duties. It must be kept clean and free from irritation. A cleansing low enema of plain warm water should be given daily. Success in rectal feeding depends entirely on the extreme care exercised by the nurse in preparing the food and in cautiously administering it. The food must be predigested and in the proper quantity. It is well to begin with small quantities, say four ounces, and gradually increase the amount up to eight or more. It may be necessary to add at times a little sedative, such as Deode Tr. Opium gtt. 10 to 15 if the rectum is especially irritable. The enema is best given with a large soft catheter attached to a piece of tubing and a glass funnel. The insertion and withdrawal of the catheter must be done with great cantion, so as to prevent exciting peristalsis. The frequent use of the large long rectal tube causes sorenes of the anus. If the rectum becomes irritated an opium suppository and a few hours rest will usually allay the trouble. The feedings should not be more frequent than every four hours. In using milk it should be *fully peptonized*, that is, for at least half an hour, and until quite bitter. It is well to vary the feedings, as the rectum like the stomach seems to tire of the same food if long continued.

Various drugs may be added to the injections, such as Chloral, Bromide, Asafet, etc. Whiskey is of especial help if given in this way, as it may be administered in much larger amounts than under the skin.

A simple outline for a continued treatment would be as follows:

Whiskey	℥ ½ to 1	every 8 hours.
Pept. Milk	℥ 4 to 6	

Whiskey	℥ ½ to 1	every eight hours
White of one Egg		
Panopepton or Liq Peptonoids	℥ 2	
Normal Salt Solution	℥ 2 to 4	

The two to alternate so as to bring one every four hours. In some cases it is necessary to give a large quantity of fluid. In such once or twice in twenty fonr hours the salt solution may be increased to a pint and the whole given throngh the long rectal tube.

Saline Infusion—The injection of normal salt solution under the skin is much used in various extreme conditions. The method of opening a vein and injecting directly into the circulation has given way in the past few years to simply injecting the solution into the subcutaneous tissues. The procedure is both harmless and easily carried out. A simple infusion outfit as supplied by Powers and Anderson, of Richmond, consists of a piece of rubber tubing with a small glass funnel attached to one end and a large needle to the other. Also a bottle of Saline tablets. In lieu of the latter the simple solution may be made by dissolving a little less than 2 teaspoonfuls of salt in a pint of water. Both the apparatus and the solution should be boiled. The injection may be made at any point where the skin is loose. The sites most chosen are under the breast, side of the chest and back. The skin must be sterilized, The needle should be thrust well in under the skin, and then its end moved from side to side to loosen the tissues. Elevation of the funnel forces the fluid more rapidly. Gentle massage increases the rapidity of absorption. Rarely more than a pint is used. Whiskey may be added to the solution as required. Saline infusions are used in cases of loss of blood, shock and sudden weakness from various causes. It should be of great advantage in Malarial Hœmaturia. In Puerperal Eclamsia bleeding and infusing should be done at the same time. I have seen most wonderful effects from this treatment. By withdrawing some of the blood and replacing it with salt solution the poison in the system is diluted, and the salt solution further helps to stimulate the heart and the kidneys.

The subject of Nutritive Infusions has been discussed by me in a paper read before the Tri-State Medical Association, in which I cited a series of experiments on rabbits with egg albumen disolved in salt solution. This treatment is good as far as it goes. It is limited by the fact that egg albumen requires a large amount water to dissolve.

Many other means are employed in the treatment of bad cases. I have tried to detail the principal ones. Oxygen especially is coming more into use now that the

manufacturers are putting it up in such convenient containers.

The limits of this discussion will not permit me to make a general report of cases. And indeed it would be difficult to select those of most interest and instruction. Hardly a day passes but what the busy practitioner has one or more desperate cases to deal with. I happen to be treating at present one of the worst in the line of medical diseases that I have ever seen. The patient, a stout female of about fifty-five, has a dilated heart, which has been a source of anxiety for a couple of years. Two weeks ago after some slight exertion she suddenly collapsed. One of my assistants, Dr. Kellam, reached her in a few minutes and gave a number of heart stimulants hypodermically. Her pulse was at times imperceptible and this condition continued for several hours. Truly she appeared to be dying and it seemed cruel to be sticking her full of hypodermics. The stimulation, however, was continued in as large amounts as we dared, including Strychnia, Sparteine, Caff. & Sod. Benzoate, and frequent Hypos. of Whiskey. On account of dyspnœa oxygen seemed to be of great service. She soon developed complete paralysis of the left side from cerebral hemorrhage. Notwithstanding the latter it was necessary to continue the tremendous stimulation, combining with it small doses of Ergot. It was days before we could count the pulse, and even now it is both irregular and feeble. We were not able to use the rectum on account of the danger of moving the patient, the slightest change of position causing collapse. We are just now gradually withdrawing the medicines hypodermically and giving them by mouth. I think the patient has a fair chance of ultimate recovery.

I had a case some years ago of persistent Vomiting, which will illustrate how long we may keep patients alive artificially. The patient was a young married woman of a nervous temperament. For four weeks she retained not a drop of nourishment by mouth. During the entire time she had hypodermic medication every two or three hours and rectal feeding every four or six hours. Her life was unquestionably saved by the skill of her nurses in properly using the bowel for feeding. Not once did the rectum refuse to perform its new duty.

In surgical operations and after treatment we find the greatest use for emergency and extreme remedies. A general anæsthetic should never be given without preparation being made for every emergency. It is my custom to have on hand three hypo. syringes, one filled with Strychnia Sulphate Gr. 1-30, the second with Sparteine Sulphate Gr. 1-2, and Caff. and Sod. Benz. Gr. 3, and the third with Whiskey. Also at hand and ready for use an infusion apparatus, a rectal tube and syringe, and an oxygen apparatus. When we need an emergency remedy we usually want it in a hurry. At the first sign of heart weakness the anæsthetizer gives the Strychnia. If more stimulation is needed the Sparteine and Caffeine. If still more is required, from 6 to 10 Hypos. of Whiskey. If the patient's condition is bad we give a Saline Infusion with the addition of Whiskey ʒ 1. Various other measures are resorted to as required, such as rectal stimulation, lowering head, application of heat, etc.

In the after treatment of operative cases Hypo. stimulation should be continued until we feel certain of the condition of the heart. Saline solution by the bowel for thirst and rectal feeding and stimulation should be used as required.

Every practitioner, especially in remote districts, should carry with him at least all the heart stimulants mentioned in the early part of this paper, and also an infusion apparatus. There is no telling at what moment he may have to make use of them, and he may be able by their prompt employment to save some human life.

I realize fully that this is a most imperfect paper, hurriedly written and woefully incomplete. I have said nothing that is new and yet I have tried to touch upon a most important subject in a practical form. If these poorly expressed thoughts result in stimulating a few of us to increase our exertions in saving life, especially in the apparently hopeless cases, I shall be thankful.

In conclusion, gentlemen, let us bear in mind the tremendous responsibilities that are upon us in the management of extreme cases. We cannot save all, and yet there is no telling how many we can save if we make use of every possible means at our disposal. *We cannot say who must die and who will live.* Let us be always hopeful, looking on the bright side of even our worst cases, sparing no trouble, no expense; nourishing, stimulating, even if need be to the last breath. Holding on to the precious lives that are in our hands with an iron grip, fighting off the "Grim Reaper" inch by inch until finally success is ours, and a life is saved. Or, if we fail, we need have no regrets, we can feel that to the fullest extent our duty has been done.

Perineorraphy.

By Dr. Le Grand Guerry, Columbia, S. C.

It is very generally true in surgery that the greater the number of operations devised for the relief of a given trouble, the

less radical and permanent good may be expected from any one of them; this fact is never more amply proven than in relation to the subject under consideration.

There is nothing new, nothing original in the points here in dwelt upon, but they do furnish us with a constantly recurring and sound principle for our guidance in operations on all degrees of laceration to the female perineum.

This fact should be kept foremost in our minds, that we are contending for the establishment of a true anatomical and physiological principle that should underlie these operations rather than any special method of performing them. Our endeavor will be to show why it is that the levator ani-muscle and its associated layers of pelvic fascia should be made the pivotal point in the repair and not the one thing most generally disregarded.

As already stated this paper will not deal with the operative technique, nor will it go into a study of the anatomy of the perineum; this may be found in any general textbook of anatomy, especially Deaver's Surgical Anatomy gives a very fine and lucid description of the facts under discussion.

We must look an operation on these parts that not only pretends to replace divided fundamental structures, but for a method that does replace them in a true anatomical way. To remove cicatrical tissue, to resect the vaginal outlet and re-unite the raw surfaces does not restore the deep nidus of the perineum.

The all essential thing to understand is this: what muscle forms the true perineum and what is its real function. For all practical purposes the levator ani muscle and its two layers of pelvic fascia is the perineum. The function of this muscle is, in the first place, to keep the uterus in a position of normal antevision as well as being the most important of all the uterine supports. Secondly in a general way, it is the main support to the pelvic outlet (we are only studying this muscle in so far as it relates to our subject.)

It would appear to me that if the most important points just mentioned were better understood by men who were doing this kind of work, the levator-ani would be made the ground work of perineal repair, and until it is understood and put into actual practice our patients suffering from this accident are not going to be relieved as they should be.

The first effect of a lacerated perineum is to open up the way for a backward displacement of the uterus, which is the first step in a series of mal-positions that will naturally end in prolapsus-uteri or possibly in procedentia.

Rectocele is, in a great number of cases, associated with the same trouble and comes from the same cause, for is it not one of the important functions of this same muscle to keep as it were the rectum displaced backwards?

If the above understanding of the levator-ani is correct, then it seems that what follows is not only logical, but of necessity true. Some men contend that it is impractical to replace this muscle and its fascia, but they also admit that if it were practical the operation would be an ideal operation; the rectitutio ad integram of the Latin surgeous. The deep nidus of the perineum can be restored; the divided muscle and its fascia (especially the deep layer of pelvic fascia) can be dissected up and replaced layer to layer in exactly the same way that any other muscle can be replaced, and for the same reason. Let us not forget that we contend for a principle and not for any special method of operating, we rather hope to throw some light on the one essential thing that any operation on a lacerated perineum must contain to be really scientific.

A most able writer in speaking of this same subject illustrates his meaning in the following forceful way: "No one will venture to restore the ventral hernia by making a denudation of the skin over the site of the repture, and by uniting the raw edges. The rational operation that will bring success here, consists in separation of the roughly united layers by careful dissection, and direct, exact union of those layers of tissue which belong to each other." This is exactly the principle that should be applied to the subject under consideration. Pardon another illustration: Why is it that we lay so much stress on a thorough and accurate co-aptation of each divided layer of tissue when sewing up an abdominal incision? Is not the analogy complete? The case is a parallel one.

To restore a torn perineum properly it is manifest that we must restore the torn structure; if this is not done we are liable to the same criticism as the surgeon who operates on a ventral hernia as above described. What are muscle and fascia for? Muscle furnishes the elastic and motor power; fascia the retaining and supporting power. If this is not true, then why is it that nature has given to the muscles of the abdominal wall, through the mediation of the external oblique, such a dense, unyielding layer of fascia, and still more than that, this same external oblique, varies in density and thickness on those operations of the abdominal wall which stands in greatest

need of support. Carry, the illustration one point further, remove this layer of external oblique fascia from the anterior abdominal wall and how would the muscles be able to maintain a proper support ? Apply this same process of reasoning, if it be logical, to the repair of a lacerated perineum and the answer is apparent. From what has been said we draw the following conclusion:

1st. The superficial muscles of the perineum are too delicate, and are not located properly to furnish a sufficient support to the female pelvic floor.

2nd. According to A. Goldspohn: "the levator-ani muscle and its two deep layers of pelvic fascia, between which it lies, and by which it is reinforced, are the true potential elements of the perineal body." This point is the very essence of the whole subject.

3rd. Simple resection of the vaginal outlet, thereby narrowing the introitus vaginal does not restore the deep nidus of the perineum.

4th. To replace the perineal body, and restore to it its normal anatomical and physiological relationship, the above mentioned principles must be carried out.

In conclusion the writer would say that he has operated by replacing the levator and the deep layer of fascia in a goodly number of cases, and that many of them have stood the test of a subsequent pregnancy.

In all of our more recent cases we have been over-lapping the muscle which marks a distinct advance.

The Advantages in the Methods of Administration of Antitoxine and Intubation.*

By Dr. E. T. Dickinson, Wilson, N. C.

The discussion of this limited subject is encouraged principally by the hope of assisting someone in his first experience with these valuable remedies. Discouragement to him and mortality to his record are apt to come through timidity and postponement of their proper use, but the most brilliant and satisfactory results attend their early and proper administration.

The three greatest dangers relate to the imaginary difficulty and delay of early intubation, the administration of too small amount of antitoxine and the unnecessarily prolonged wearing of the tube.

A properly constructed intubation set should be kept in easy reach of every practitioner and he should be willing and prepared if possible, to insert it at the time required. There is never a more proper time to use such service as we have at hand and a reasonable and gentle effort on the part of the practitioner is always harmless and after the first success the tube will be directed into the laryux with surprising ease. The anatomical knowledge necessary for the proper manipulation of a tube is but little and may be gained in a few minutes from a cut showing the shape and the relations of the respiratory organs and the œsophagus at the lower boundary of the pharynx. The most important and only necessary guide is the fore finger pressing against the inferior surfaee of the epiglotis as it holds this organ well up toward the root of the tongue, while the tube is being inserted. It should be remembered that it is not absolutely necessary that one shall have practiced on the cadaver before attempting by gentle manipulations on the living child. No more force however should be used than that required in the passing of a female catheter.

I succeeded in intubating the first child I ever saw intubated and had only the excited mother to assist.

If the serum is given in sufficiently large initial doses and frequently repeated until the membrane almost disappears the retention of the tube longer than a day or two will be unnecessary in most of the cases. If on ths other hand the serum be given in only sufficient doses to stay the progress of the disease and yet not sufficient to destroy the membrane it may be necessary to wear the tube for days and weeks before the membrane disappears, and then it will often be found that the muscular, mucous and nervous structures of the laryux are so impaired by the lingering of the toxines of the diphtheria and by the prolonged habit of wearing and pressure of the tube that going without the tube for more than an hour or two will be impossible. So very little or nothing is gained by the improper use of these two valuable remedies, as nearly all the cases die sooner or later from some accident or complication resulting from the prolonged wearing of the tube.

The literature issued near the advent and recognitlon of antitoxine has been revised and the old should not be followed. That issued between the years 1895 and 1898 advises the giving of barely half the present dosage of antitoxine and of the retention of the tube more than twice as long as is advised at present. In consebuence of this there was formerly a greater death rate and a necessity for the performance of many more teacheotomies than now.

The difference in dosage is noticeable, as given by all the authorities I have investigated between the years 1897 and 1902. I

*Read before the Seaboard Medical Society, Dec. 15th, 1903.

quote here the difference between the two editions of Dr. L. Emmett Holts book copyrighted 1897 and 1902 respectively. He says in first edition: "Mild cases should receive 1,000 units for the first injection, a second being rarely required," in second edition; "mild cases should receive from 2,000 to 3,000 units as initial dose, a second being rarely required." Again in his first edition he says: "In all severe cases the initial dose should be from 1,500 to 2,000 units, this dose to be repeated in from 18 to 24 hours if no improvement is seen," in second edition: "for a child over two years old an initial dose for a severe attack, including all laryngeal cases, should not be less than 4,000 or 5,000 units and this dose should be repeated in from six to eight hours, provided no improvement is seen." Children under two years old should receive from 2,000 to 3,000 units. Cases of exceptional severity, where the injection is given late, should receive from 8,000 to 10,000 units, to be repeated in from six to eight hours if the progress of the disease is unfavorable." No ill effects follow much larger doses than these. The rule at the Boston City Hospital is to give 4,000 units every two hours to every severe case. As much as 110,000 units has been given to a single patient.

Reliable and concentrated serums should be kept on hand or within easy reach of every practitioner as it may be returned and exchanged for new when its term of activity has expired. This admits of the early administration of the only recognized remedy. And this is of great importance, for it has been shown that the mortality rate is increased in direct proportion to delay in use of serum, because the destruction of the cells may in delayed cases already be so great that the serum cannot undo the serious damage the toxines have done.

It is certain that when antitoxine is given early and in sufficient dose the use of the tube, when required, can be dispensed with much earlier. It often happens that the tube is coughed up some hours after its introduction. It has been found well to allow it to remain out until its replacement is necessary or, as is frequent, its use no longer needed. Other cases need the tube to add to their safety during the course of a night, when it should be removed and replaced the following night or later if necessary. In severe cases where constant wsaring of the tube for some days is necessary it should be removed at the earliest possible hour, as indicated by the disappearance of the membrane, and replaced later for a few hours or longer if necessary.

In this way we get the greatest advantage from the wearing of the tube. In this way we get the greatest advantage and no disadvantage in giving as large dose of serum as is consistant with the purse of the patient.

The Finsen Light Cure.

By H. John Stewart, M. D., Chicago, Illinois.

Having read and heard so much about the Finsen Light treatment in the cure of disease, I decided in April of this year to make a personal investigation to see and learn for myself if it was true that such diseases as lupus and rodent ulcer could be cured by light. I visited several institutions where the Finsen Lamp was in operation. In Manchester, England, in the Salford Skin Hospital, they had a Finsen Light department under the supervision of Prof. Brooke, who informed me they were unable to treat half the sufferers who applied for treatment, and they had solicited by public subscription $125,000 for the erection of a new hospital for skin diseases, where they would be able to enlarge the "light department" so at least 200 people could be treated daily, as there were people on their waiting list whom they would be unable to treat with their present facilities for an indefinite time. Prof. Brooke was most enthusiastic over the wonderful results they were obtaining there.

I next visited the London general hospital of London, England, and found they were just completing an immense light department, that had been established by the present Queen of England, then Princess of Wales, in 1900, who presented the first lamp at that time, and as it was found to be far too inadequate, she had just given a second lamp, and Alfred Harmsworth had also given $50,000 for the perpetual endowment of another Finsen Lamp in this department, and they were then building a platform to receive the King and Queen, whom they expected to come June 11th to dedicate this new department, and even with these increased facilities I was informed by Prof. Sequirey, there were patients on the waiting list who were unable to receive treatment.

I next visited the Light Institute at Copenhagen and found that all the statements that had been made regarding The Finsen Light were not in the least exaggerated. I had the pleasure of meeting and studying under Prof. Finsen himself, and was extended every courtesy by him and his associates at this institution. He seemed very much pleased to describe in the minutest detail the apparatus, treatment, etc., and gave me a detailed history of the lamp.

The Finsen Light is a large specially constructed arc lamp of 20,000 candle power,

or twenty times stronger than an ordinary street lamp, and uses from sixty to eighty amperes of current. This lamp burns a specially made carbon which can only be procured in Copenhagen. In the upper holder is a large carbon, while a smaller one is used in the bottom holder; when properly adjusted for arcing a maximum number of violet and ultra violet rays are produced. The advantage of the Finsen Lamp over others is in the greater number of violet rays produced. The Finsen Lamp produces a much greater number of chemical rays than sunlight, as the atmosphere absorbs a large percentage of these rays. The light is so intense it is impossible to look at it with the naked eye, and it is necessary for all the attendants and patients to wear dense smoked glasses while the lamp is in operation; an aluminum hood about two feet wide surrounds the lamp, which hood is fringed on its lower border with a deep crimson colored paper skirt to further aid in excluding the diffused light from the patients.

The concentrated rays are carried from the arc to the patients through four telescopic tubes, known as converging tubes, suspended at an angle of forty-five degrees, the tubes containing a series of rock crystal lenses so arranged that reservoirs for running water exists between them. By means of these water screens and rock crystal lenses all rays but the violet are eliminated, and these rays are converged and concentrated, thus vastly increasing the healing and bactericidal effects.

The heat from the original arc is so intense that to prevent cracking of the lenses and discomfort to the patients, a stream of cold water is kept constantly circulating through the reservoirs or water screens.

To further concentrate and cool the rays, a compressor is provided which consists of two rock crystal lenses so arranged that a chamber for running water exists between them. This part of the apparatus is used to compress the affected area and make it bloodless during the treatment, thus facilitating deeper penetration. The Finsen arc light has been used with marked success in curing many skin diseases, thought until this time incurable, especially lupus and rodent ulcer. During a period of six years the Finsen Medical Light Institute at Copenhagen has grown from a very small shed, where they were only able to treat one patient at a time, to a magnificent institution where they are now treating three hundred people daily, and Light Institutes have been established in London, England; St. Petersburg, Russia; Paris, France, and Chicago, Illinois, where they are all carrying on a similar work to the parent institution.

It has been a popular belief that lupus was a very rare disease, and common only in the northern countries, and although it was supposed there was no lupus in London, yet the hospitals are now treating 175 daily, and the management was compelled to install two more lamps and build a separate department, so great has been the demand from people seeking relief. Lupus was considered very rare in the United States, but since the establishment of the Finsen Light Institute in Chicago, the author is informed they have been taxed to their utmost capacity, and they, too, have found it necessary to increase their facilities as there are now patients on the waiting list who are not able to receive treatment. It seems but a question of a short time until Light Institutes will be established in every large city in America, because it has proven so efficacious in many other skin diseases besides lupus and rodent ulcer, such as acne, alopeciareata, localized eczema, chronic ulcers and nævus. The treatments are given while the patients recline on couches. By firm pressure with the compressors on the tissues to be treated, the blood is removed, and more heat can be borne and deeper penetration produced. This compression has another important advantage in that the bactericidal effect is greater because it has been shown that the corpuscles absorb a considerable portion of the rays and thus prevent deep penetration.

The affected area is placed about ten inches from the distal end of the converging apparatus, and the treatments, or seances as they are called, take about one hour daily in lupus and rodent ulcer, and in other skin diseases from ten to twenty minutes, depending upon each individual case.

The results attained have been hardly less than marvelous, since from carefully compiled statistics covering a series of over 800 cases of lupus treated at the Finsen Institute, an overwhelming percentage of cures and an insignificant number of failures is shown, and Prof. Finsen goes so far as to say that in lupus-vulgaris cures can be obtained in 97 per cent. of cases even when the whole face is involved. In these 800 patients, with ages ranging from 5 to 74 years, the average duration of disease was eleven years. This treatment has an advantage over the X-ray in that there is no danger of burning and consequent sloughing. With the Light treatment we are dealing with a known quantity, while with the X-ray we have an unknown quantity of uncertain action.

The Light treatment causes no pain; a red erythematous spot and blister appears

where the light is applied, and in five or six days the scab falls off and the ulcer is healed beneath, and the skin is left free from scar or cicatrix, but red; the redness, however, after a variable period fades and leaves the skin white and uncontracted, except where there has been a loss of tissue from the disease before treatment.

In conclusion, the author would state that the possibilities for the Light treatment in the curing of diseases are still unknown, and believes in a limited time it will take an exalted position in the field of medicine and surgery.

Appendicitis—(Its Relation to Pelvic Inflammations.)*

By J. M. Baldy, M. D.

There seems to be a considerable deal of difficulty amongst surgeons in regard to the status of this subject. Much is written concerning it by men who appear to have a good conception of the underlying conditions, much by men who seem to have a very confused idea, and a great deal by men who apparently have not the faintest idea of that about which they are writing, and whose conclusions are consequently worthless. The subject is complicated in some of its aspects and becomes the more confused as there is a lack of common understanding as to the definite meaning of terms used in the discussion. There is, of course, but one basis on which to consider the relation of these two diseases—the pathologic. I use the expression "two diseases" advisedly, as in spite of all that has been written, I am firmly of the opinion that they are absolutely independent conditions and in no way (except in certain peculiar rare circumstances) related one to the other—either in cause or effect. Both pelvic inflammatory disease and appendicitis are infections in origin. In the case of Pelvic Inflammatory Disease the source of this infection is from the uterus; in the case of Appendicitis, it is from the interior of the Veriform Appendix or the intestine.

I do not mean to deny that Pelvic Inflammatory Disease may occur from traumatisms, nor that an Appendicitis may arise from the same cause: but this is true so rarely that I wish to be understood as excluding such from present consideration, in order that we may have a definite and common understanding as to the terms "Pelvic Inflammatory Disease" and "Appendicitis" as applied to the relation of these conditions. Otherwise there will be as much confusion in understanding as has occurred in the past. It is definitely understood then that in the use of these terms an infective origin is understood.

*Read before the Surgical and Gynocological Association at Atlanta.

It is not an uncommon experience for operators to find on opening the abdomen that both the veriform appendix and the pelvic organs are bound up in a common mass and this condition is by no means dependent on an advanced degree of inflammatory process. I have myself seen over a hundred such cases. For this reason many surgeons find great difficulty in making a diagnosis between these diseases and both worry themselves and endanger their patients by unnecessary delays in trying to be too refined. The comparatively exact methods of diagnosis of the day are such as to render any extended remarks on this part of the subject superfluous. The diagnosis is fairly easy in the majority of cases and where any serious doubt obtains it rarely fails eventually to be settled in favor of the Pelvic Inflammatory Disease. The fact of the doubt existing in the mind of a skilled diagnostrician is a strong element pointing to the pelvic origin. After the abdomen has been opened, I have yet to see the first case in which a doubt remained in my mind as to which organ was the cause of the inflammation. If then one has a reasonable cause for doubt the incision should be made as for pelvic disease, because the chances are largely in favor of this trouble, and if by chance it turns out that an Appendicitis exists and that the pelvic inflammation is merely secondary, it is because the colon and Vermiform Appendix are so low as to practically be lying in the pelvic and can readily be dealt with through the median incision.

Kelly has canvassed the methods of practice of some fifty or sixty of the surgeons of the country in the treatment of the veriform appendix when the abdomen has been opened for any cause whatever. Some fifteen or twenty of these gentlemen remove this organ as a routine in the practice of abdominal surgery; a very large proportion of them remove it always if it is adherent. Kelly himself being amongst this number. A few remove it only if it is otherwise diseased. The reason given by most writers for removing it, if it be adherent is that its vitality is lowered and that appendicitis is very liable to follow or that it is already the seat of Appendicitis; in fact, the assumption is that in large numbers of these cases the disease is originally an appendicitis and that the pelvic inflammation is secondary.

I am able to appreciate the reason (although not agreeing with them) of the class of surgeons who remove the Veriform Appendix as a routine practice as a prophylactic measure, but am unable to follow the reasoning of that class who adopt the practice of removal on the ground that the con-

dition of adhesion implies Appendicitis or future danger of this disease. In the first place, ninety to ninety-five per cent of this mixed class are in origin cases of Pelvic Inflammatory Disease and the adhesion of the Vermiform Appendix is a mere coincidence due to inflammation of contiguous serum surfaces as is so commonly the case of adhesion of intestines in Pelvic Inflammatory Diseases. Who ever thinks of confusing these adherent knuckles of intestine (to a pus-tube or a salpingitis) with infective disease of the intestines? And how can the mere denuding of the peritoneal coat (and often only the surface portions of it) of the Vermiform Appendix predispose it to a future appendicitis or originate an infective process in its mucous membrane lined cavity? Anyone at all familiar with intra abdominal processes, surely is aware of the fact that at the end of a week or two, one of two things has occurred to such a Vermiform Appendix; the serous membrane is fully reformed, or the organ at the worst is bound down or covered over by a film of serous adhesion. The formation of the latter condition is well known to be a favorate way of nature to cure certain mild cases of real Appendicitis. Call the conditions what you will, a Vermiform Appendix so involved emphatically is not Appendicitis and its removal cannot therefore be justified on this plea. Its removal for the other causes noted is unnecessary in the vast majority of cases, is adding always a certain element of danger to the operation and not infrequently is so dangerous as to be absolutely unjustifiable.

The justification of taking the additional risk of infection and loss of time is of course closely bound up in the future behavior of these, and one must in the long run be governed by experience. Personally, in over one hundred such cases I have not found sufficient cause to make me remove the vermiform Appendix more than once; and this in spite of the fact that in not a few of them inflammatory products had invaded the underlying coats of the peritoneum. In no such case have I ever had to re-operate on account of the condition of the Vermiform Appendix, in none have I found symptoms remaining referable to that organ, and in no case where for any cause I have had occasion to again enter that individual abdomen have I failed to find the local repair satisfactory (although I admit such opportunity of proof has been rare.) In no case have I known Appendicitis to occur subsequently in an appendix I have so treated. I do not wish to convey the impression that an Appendicitis could not occur under these conditions as well as under normal conditions, because I can see no reason why it should not. I merely record the fact that it has not done so and only for the purpose of supporting my position when I assume that this class of injury does not predispose to a future attack of Appendicitis. My experience has led me to differ also with those gentlemen who hold that Appendicitis generates Pelvic Inflammatory Disease or that Pelvic Inflammatory Disease generates Appendicitis. The two diseases are rarely associated and only then as a coincidence. I am firmly of the opinion that the one never causes the other. The association we so frequently see is the one disease involving the other organ by the spread of inflammation by contiguity which spread of inflammation does not carry with it the elements of the original infection. And when the one organ or the other is so involved (simply by reason of Anatomical relations) the disease can in no sense be called Appendicitis on the one hand nor Pelvic Inflammatory Disease on the other, and in neither case is there sufficient reason in the vast majority of cases for so treating it. The mere deposit, as shown by the microscope, of a few inflammatory products in the walls of the vermiform appendix or in the walls of the Fallopian Tubes or Broad Ligaments does not make Appendicitis in the one case, nor does it make Pelvic Inflammatory Disease in the other case; call it what else you will.

I would record this one other fact as substantiating the position of the one disease, not being a causative factor for the development of the other. In all my experience I have not seen a single case in which having found pus in a Fallopian Tube have I found pus in the involved Vermiform Appendix; nor have I found a perforated or gangreenous Appendix in such a case. And on the other hand where having found a perforated or gangrenous Vermiform Appendix or one which contained pus either in its cavity or enclosed in its walls have I ever noticed pus in a Fallopian Tube or Ovary. Should I meet with such a condition it would appear to me (so rare must it be) that the two diseases existed as a coincidence independent of each other as far as direct infective from one to the other was concerned. If such was not the case the complications would certainly be of frequent occurrence, much more frequently than is even claimed by the advocate of this theory, because it is so exceedingly common to find this association even to the extent of the contiguous formation of pus. I have not infrequently seen the pelvis full of pus in the case of Appendicitis and have just as frequently seen the Vermiform Appendix form part of the walls of a pelvic abscess due to Pelvic Imflammatory Disease.

Dislocation of the Outer End of the Clavicle.

Sheldon (Annales of Surgery) says:

1. Cases where the coraco-clavicular ligaments are completely torn.

2. Cases in which a complete rupture of the coraco clavicular ligaments has not occurred.

By physical examination we can distinguish these two cases clinically. The first class of cases always require operative treatment in order to secure satisfactory results. As diagnostic points in the recognition of complete rupture of the coraco-clavicular ligament the following conditions are to be observed:

1. Inability to reduce the dislocation.

2. Separation of the articular surfaces more than one inch.

3. Ability to produce a longitudinal separation of the articular surfaces one-third of an inch, or to elevate easily the outer end of the clavicle.

4. Marked tendency to recurrence of the dislocation.

Cooper first did the open operation with wiring in 1861, but the operation did not come much into use until recent years. Different operators vary as to the choice of material to be used in the operation, the general preference being for silver wire. In the opinion of the writer it is best to use absorbable sutures for keeping the bones in apposition, these to be passed through holes drilled in the clavicle and acromion; the ligaments and fascia are approximated with fine catgut, the skin wound with silkworm gut. By using absorbable sutures no danger of future irritation of the wound is incurred, as might be the case with silver wire.

Prolongation of Life.

Weber (British Medical Journal, Dec. 5, 1903) lays down the following rules for persons desirious of prolonging their lives:

Moderation in eating, drinking, and physical indulgence.

Pure air out of the house and within.

The keeping of every organ of the body as far as possible in constant working order.

Regular exercise every day in all weathers, supplemented in many cases by breathing movements, and by walking and climbing tours.

Going to bed early and rising early, and restricting the hours of sleep to six or seven hours.

Daily baths or ablutions according to individual conditions, cold or warm, or warm followed by cold.

Regular work and mental occupation.

Cultivation of placidity, cheerfulness and hopefulness of mind.

Employment of the great power of the mind in controlling passions and nervous fear.

Strengthening the will in carrying out whatever is useful, and in checking the craving for stimulants, anodynes, and other injurious agencies.

Gastric Hyperacidity (Hyperchlorhydria); Its Nature, Diagnosis and Treatment.

W. Russell (British Medical Journal, 1903) believes that hydrochloric acid excess is a very common cause of dyspepsia, and ultimately a gastric dilatation. Twenty-five per cent. of all dyspeptic cases come under this category. The sequence of events is as follows—meals, intervals of relief, and recurrence of pain. The pain may be of the most varying character, and is usually referred to the epigastrium, but may be felt almost anywhere in the chest. The measure and site of the pain depend upon the duration and severity of the condition, more than upon any neuropathic tendency in the individual. Any tenderness is usually quite superficial. The eructation of gas or of a small quantity of acrid fluid often gives the most relief. Other symptoms referred to the stomach are flatulent distention, gaseous and acid eructations, and heartburn. The bowels are usually constipated. Paroxysmal pyrosis also occurs, which the author thinks is a pyloric phenomenon.

The symptoms of gastric superacidity are explained as follows: When food is taken there is an excess of hydrochloric acid in the gastric juice excreted. In consequence the proteid elements of the food are rapidly digested and pass out of the stomach; but starchy foods are unaltered, not digested, and remain in the stomach. Being thus delayed, it continues to stimulate the gastric secretion, and there being no more proteid with which to combine, the secretion accumulates and leads to superacidity. The over secretion is more a chemical and diathetic error than a neurosis. The retention in the stomach of superacid residuum gives rise further to catarrh and to atonic dilatation. Treatment depends on the severity of the condition. Alkalies taken before food or just when distress begins, often give relief. Acids are rarely of service. In some cases the prohibition of starches works well, in others the patient must be put on a pure proteid diet. In the severest cases the removal of the gastric residuum furnishes the speediest means of temporary relief. The considerations determining the dietary are: (1) The proteids should be reduced to a physiological minimum; (2) the starches should be as much altered as possible; (3) the quantity of food should not exceed the physiological limits.

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SUPREME COURT DECISION IN THE BIGGS CASE.

In the December edition of the Journal we published, in part, the brief prepared by our Attorney General in this case. As will be remembered, a man by the name of Biggs, at Greensboro, was indicted a few months ago for practicing medicine without license. He was found guilty and an appeal to the Supreme Court was taken. This court two weeks ago did not sustain the decision of the Superior Court. The important point of law involved in this suit was—Did the legislature of 1903 define properly or legally what constitutes the practice of medicine ? It did not according to this decision. The Court says in this last ruling that the legislature incorporated in its definition phrases which make the Act unconstitutional. The act referred to provides that the expression practice of medicine or surgery shall be construed to mean the management or treatment, for fee or reward, of any case of disease, physical or mental, real or imaginary, with or without drugs, surgical operation, surgical or mechanical appliances, or by any other method whatsoever: *Provided*, that this shall not apply to midwives or nurses: *Provided further*, that applicants not belonging to the regular school of medicine shall not be required to stand an examination except upon the branches taught in their regular colleges, to-wit: The Osteopaths shall be examined only upon descriptive anatomy, general chemistry, histology, physiology, urinalysis and toxicology, hygiene, regional anatomy, pathology, neurology, surgery, applied anatomy, bacteriology, gynecology, obstetrics and physical diagnosis: *Provided*, this act shall not apply to any person who ministers to or cures the sick or suffering by prayer to Almighty God, without the use of any drug or material means. Does this definition differ materially from that given by several of our leading authorities, a few of which we here quote?

Century Dictionary: "A substance used as a remedy for disease; a substance having, or supposed to have, curative properties; hence, figuratively, anything that has a curative or remedial effect."

Standard: "2. The healing art; the science of the preservation of health and of treating diseases for the purpose of cure."

Webster: "I. The science which relates to the prevention, cure, or alleviation of disease."

Worcester: "2. That branch of physic which relates to the healing of disease (Dunglison.)

Stormonth: "(O. F. *Medicine* from L. *medicina*, the healng art, medicine,) anything administered for the cure or mitigation of disease; the art of curing or alleviating disease; the practice and faculty of medicine."

Until the McKnight case was taken to the higher court we felt confident that our laws bearing upon the practice of medicine were ample and complete. The point of law in this case was: Did the practice of massage, electricity and hydrotherapy, the principal means used by McKnight, mean the practice of medicine ? The Supreme Court two years ago said that it did not. Then the legislature of 1903 defined what the practice of medicine was and incorporated expressions in its definition which unquestionably included such methods as pursued by practitioners like McKnight and Biggs. Now the Biggs case comes up and the higher court decides that the legislature with all its prominent legal advisers defined the practice of medicine in such a way as to make the act unconstitutional. We have been informed that Judge Clark wrote and expressed in terms to suit himself the decision, and that Judges Walker and Connor did not concur with the phraseology used, but did with the important points of the decision. While we pretend to know but very little about the law we will say that as it appears to us, there is not the clearness and force and the right in Judge Clark's reasoning which we expected from our Chief Justice. The diction scattered through nearly every paragraph of this brief will provoke many of his friends and a majority of the most conservative members of the medical profession of North Carolina. There is an element of prejudice in it which anyone can easily recognize. Why did he refer to Wendell Holmes ? Those who are familiar with the circumstances in which Dr. Holmes made the statement quoted by Judge Clark can see how perfectly irrational it is to incorporate such a statement in this decision. Further the facts in the case contradict the opinion that the laws were created by a set of men who wanted to create a monopoly. We hardly believe that Judge Person would have considered his opinion, which is quoted by the Chief Justice, applicable to this case. The members of the medical profession in North Carolina are not selfish and cunning and scheming men who are trying to create a monopoly for their individual gain. Although this idea is suggested in the opinion of our

Supreme Court. Physicians as a rule, certainly those who are the most interested in medical legislation, are the most interested in the public health and its protection and devote a great deal of their time to the study of various improved methods of preventing diseases. There is no way of estimating the amount of good the medical profession donates annually to the people of the State in the way of preventing the development and spread of diseases. One-fourth of the medical literature published in this magazine is on subjects pertaining to preventative medicine. What would it cost the people of the State if the physicians within its borders made no effort for ten years to prevent the development and spread of diseases ? There is no way of estimating this, of course, but any intelligent mind can form an idea of what the state of things would be. With these facts does it look like the physicians of the State are interested in the medical laws for selfish purposes? Such an opinion can't be respected by any unprejudiced mind. We regret very much to see scattered through this opinion so many expressions which depreciate the noble efforts of the medical guild in all the ages of the past, and the genuine heroism exemplified by them since the existence of the human race. To know the personal of those who have influenced the medical legislation in this State will convince anyone that the opinion is not just that creates the idea that these men were incited by any other motive than to protect the comfort and happiness of the citizens of the State and to give to the ignorant impostor "who banishes headache with the hands" what he deserves.

The Chief Justice asked the question— "Is it requisite that the man who treats a disease of the ear shall really be competent in obstetrics, or that it is a penalty to heal a disease of the eye unless the operator understands chemistry, etc ?" Judging from the mood in which he asked these questions we hardly think that he expected any one to attempt to answer them. A medical opinion would say that it is necessary for an eye specialist to know considerable about obstetrics or chemistry. As a general rule every specialist should have a fair knowledge of every branch of medicine. The ruling of the court manifests an interest in the protection of the priviledges and the rights of the charlatan and the quack that may be consistent with the law, but it is retrograding and in the end it will be harmful and expensive to the unsuspecting and ignorant classes of our people. Unquestionably the greatest menace to the public health of to-day in North Carolina is the incompetent physician, the ignorant impostor, the exploitor, who practices worthless methods for gain and to the detriment of the ignorant, credulous people.

While the brief which we publish on page 126 does not clearly mention it, these decisions refer only to the definition of what constitutes the practice of medicine and in no way interfere with the laws governing the practice of medicine in the State which have existed up to 1901. All enactments prior to 1903 have been passed upon by the Supreme Court and found constitutional. The old law still provides that all persons calling themselves doctors and using medicines and performing surgical operations, must have a license.

COLD BATHS IN TYPHOID FEVER.

There has been for some time a growing distrust of the value of the cold bath treatment in typhoid fever. Why this opinion has not prevailed before the writer cannot understand, for there are many practical objections to it. Besides the benefits expected from them are often disappointing to those who observe the closest in such cases. We don't wish to under rate the value of hydriatic measures in the management of this disease for often they are invaluable, but to use the cold bath to the exclusion of all other medical treatment is in the writer's opinion unwise. This opinion is based upon personal experience and not upon recent literature touching upon this subject. Dr. John McRae in American Medicine has recently published an article which throws a great deal of light upon the relative value of the cold bath and other methods of treatment. He gives a review of 717 cases of typhoid fever treated at the Montreal General Hospital during a period of five years. 439 of these cases received bath treatment—Antipyretic medical treatment was given to 148 cases and sponging to 94 cases. It was supposed that the sponging was given to only the mild cases and they have been excluded from this comparison. The method of cold bath was the same as that used by Brand. His antipyretic treatment consisted of five grains of salol and five grains of phenacetine every four hours. The mortality as given by Dr. McRae is as follows: With the bath treatment it was 10.9 per cent., with the antipyretic treatment it was 9.4 per cent. The complications seemed to be more frequent under the bath treatment. Hemorrhage complications in these cases was 12.3 per cent. 5.5 per cent. suffered from perforation and 15.2 from delerium. With the antipyretic treatment only 6 per cent. had

hemorrhage, 6.8 per cent. suffered with perforation and 14 per cent. with delirium. The author of these statistics also reports that neuritis was much more frequent after the baths. The series makes no marked indication of any form of treatment save in the bath treatment, there are more cases of hemorrhage and neuritis, whereas, in the antipyretic treatment hemorrhage is comparatively infrequent. It is of great practical interest to note the apparent value of this simple treatment which he styles antipyretic. Five years ago it would have been impossible to have persuaded the medical profession to believe that this simple treatment of typhoid fever would be productive of a lower death rate than the cold bath treatment, but it is observed in medical literature quite often these days that it is and that the Brand method is becoming less popular and other methods are considered superior. Of course no very great importance can be placed upon the value of what Dr. McRae calls his antipyretic treatment. Five grains of phenacetine every four hours is a very slight antipyretic. The idea it demonstrates is that if you leave a patient alone he will do better than if he is treated with a cold bath. The free use of salol in typhoid fever is by far the most rational treatment that has ever been used, but Dr. McRae's method of giving it does not suit the notions of the writer. Five grains of this drug every four hours will do a little good, but a very little. Fifteen grains every four hours is little enough to give in most cases. It is not uncommon in this part of the country to give twenty grains every three hours. This quantity given in powder has an antipyretic effect, besides, its satisfactory effects can at once be seen, it flattens the bowels, checks diarrhea, cleans the tongue, lowers the temperature and stops delerium. It is unquestionably conservative to state that the mortality in typhoid fever cases with the intelligent use of salol and proper feeding and careful nursing ought not to be over 5 per cent. We have no desire to depreciate the very great value of frequent sponging with ordinary water. They are often soothing and refreshing, but not so with the cold bath. Many patients, really a great majority of them, dread the cold bath. They experience no feeling of relief or pleasure after or during their use. If we were to devote more time and study to each individual case, its wants and needs rather than follow without the slightest variation one method of treatment we would often save cases which we now loose. Many physicians, I believe, overlook the importance of little things which have a decided bearing upon the future termination of their cases. The patient, when it is possible, should be humored. He may have diseased notions about things and it may not be possible or wise to please him, but when you can comply with all of his wishes you are in a position to do the most for him. He may want his room darker or lighter, warmer or colder, it may be too crowded or too noisy, he may object to the odor of certain flowers or disinfectants, his attendants may not understand him, he may not appreciate their efforts and unless they are experts, discord prevails and a fretted expression is on your patients face. All of these things when combined have a very decidedly bad effect in most cases and might be altogether the indirect cause of a man's death. These are only a few of the small things I can think of which should always be looked after and corrected in the management of typhoid fever cases.

THE ANNUAL SESSION OF THE STATE SOCIETY AND THE MEETING OF THE BOARD OF EXAMINERS.

The 1904 meeting of the State Medical Society will be held at Raleigh, May 31st–June 2d. This will be the first meeting under the new constitution, and while the time is too short for a test of its efficiency, still it may serve to indicate what may be expected in the future.

At the present time about three-fourths of the counties in the State have been organized, and as a result the membership of the State Society largely increased and it is not at all unlikely that the entire State will be represented on the roll of delegates by the last of May.

Raleigh is a very central point and accessible to all parts of the State, hence a large attendance will be expected. Reduced rates will be in effect on all railroads within the State and there can be no excuse for staying at home. The scientific program will be the best we have ever had and under the new order of things will not be disturbed by any wires of the politicians getting crossed. Our energetic secretary, Dr. Way, has put his whole soul into the new organization and if the profession in general will back him up we can easily have one of the great societies of the country.

Let any doctor who can possibly get away come and mingle with his brothers at Raleigh. Don't say that "I am going if I can," but begin now with the auto-suggestion that "I am going," and by May you will be so hypnotized that you can't keep away. Say it over to yourself at least three times a day from now on.

On Wednesday, May 25th, the Board of Medical Examiners will meet to examine

all applicants for license to practice in North Carolina.

The registration books will be open at 2 p. m., and all applicants should be present promptly at that hour. From the number of temporary licenses granted during the past eight months there will be a larger number of applicants than ever before. The new constitution of the Society does away with the necessity of any hurry in making up the list of those who have passed as one can only join through the local society, and this will be a great relief to those members of the Board who can not sit up all night without having that furry feeling in the mouth the next morning.

May 25th will be late enough for all the boys can come fresh from the quizzes to tackle the questions of the Board.

THE MEDICAL RECORDER.

This is the name of a new medical journal which is to be published at Shreveport, La. The first edition was published January, 1904. Dr. Oscar Dowling is chief editor. He has associated with him Drs. Louis Abramson, of that place, and R. H. T. Mann, of Texarkana, Ark. Two dollars and a half per annum is the subscription price. The copy which we have seen makes a very neat appearance and we can see no reason why a medical publication like this, located where it is, should not be a profitable enterprise.

Book Notices.

The Treatment of Fractures, Fourth Edition, Thoroughly Revised, Enlarged, and Reset. The Treatment of Fractures: With notes upon a few common dislocations. By Chas. L. Scudder, M. D., Surgeon to the Massachusetts General Hospital. Fourth Edition, thoroughly revised, enlarged, and reset. Octavo volume of 534 pages, with nearly 700 original illustrations. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Polished Buckram, $5.00 net; Sheep or Half Morocco, $6.00 net.

Four large editions of this work in less than four years testify to its value. The book is intended to serve as a guide to the practitioner and student in the treatment of fractures of bones. The student sees the actual conditions as they exist in fractured bones, and is encouraged to determine for himself how to meet the conditions found in each individual case. Methods of treatment are described in minute detail, and the reader is not only told, but is shown how to apply apparatus, for as far as possible, all the details are illustrated. This elaborate and complete series of illustrations constitutes a feature of the book. There are 688 of them, all from new and original drawings and reproduced in the highest styles of art. Several chapters of special importance are those on Gunshot Fractures of Bone; The Rontgen Rays and its Relation to Fractures; The Employment of Plaster-of-Paris, and the Ambulatory Treatment of Fractures.

In this fourth edition many new illustrations have been added, thus increasing the accuracy of this part of the work. The text has been thoroughly revised, thereby bringing the book absolutely abreast the times. X-ray plates of the epiphyses at different ages have been arranged. These will be found of value not only as an anatomical study but in the appreciation of epiphyseal lesions. An important addition is that of a cahpter upon a few Common Dislocations. This chapter, like the rest of book, is amply illustrated, and the accepted methods of treatment described.

Morrow on Social Diseases. The Relation of Social Diseases and Marriage. By Prince A. Morrow, A. M., M. D., Emeritus Professor of Genito-Urinary Diseases in the University and Bellevue Hospital Medical College; Surgeon to the City Hospital; Consulting Dermatologist to St. Vincent's Hospital, etc., New York. In one octavo volume of 390 pages. Cloth, $3.00, net. Lea Brothers & Co., Publishers, New York and Philadelphia, 1904.

The importance and practical value of this new and timely volume, written by a man of profound learning, long experience and sound common sense, upon a subject which so vitally concerns mankind individually and collectively, ensures its wide recognition.

Venereal diseases in their origin, and especially in their far-reaching pathological effects, strike at the very root of race perpetuation. They blight the mental, moral and physical welfare of society as does no other agency. War, pestilence and famine are temporary; venereal diseases constantly ravage all grades of society.

Since unlawful relations between the sexes have come to be known generally as "The Social Evil," the author has adopted the term "Social Diseases" to indicate the infections most usually thus acquired. Their frequent infliction upon innocent victims through legitimate marital relations involves consequences which affect not only the health, but the peace, honor and happiness of the entire family, and the importance of venereal prophylaxis is beyond words.

Heretofore no comprehensive treatise up-

on the subject has existed in our language, and it is fortunate for the profession and laity alike that an author of Dr. Morrow's achievements and established ability is the first to enter the field.

The work sets forth clearly the dangers introduced by venereal diseases into marriage—dangers to the wife, dangers to the offspring, and dangers which come from their morbid irradiations in family and social life. The fulfilment of the protective duty which has for its object the preservation of the helpless and innocent from infection, realizes the highest ideals of preventive medicine; and, while this duty devolves especially upon the physician, every member of the community is, and should be, the protector of the wife and mother and the preserver of the health and welfare of future generations.

Not the least interesting chapter presents the author's views upon the "Medical Secret" and the exercises of professional discretion in restraining improper marriages, and gives valuable hints for the physician's guidance in many of the involved questions which so frequently arise.

In dealing with these situations there is required not only a thorough knowledge of these diseases in all their recently revealed relations, but also a knowledge of human nature, and a professional sagacity which is not taught in the curricula of the medical schools.

It is to furnish just this knowledge that this book has been written, and its perusal, in fact, its study, may well be recommended not only to every physician, but to every thoughtful adult.

A Text-Book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M. D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M. D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical College, in affiliation with the University of Chicago. Two imperial octavo volumes of about 750 pages each, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Per volume: Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net.

This work presents to the medical and legal professions a comprehensive survey of forensic medicine and toxicology in moderate compass.

For convenience of reference the treatise has been divided into two sections, Part I and Part II, the latter being devoted to Toxicology and all other portions of Legal Medicine in which laboratory investigation is an essential feature. Under "Expert Evidence not only is advice given to medical experts, but suggestions are also made to attorneys as to the best methods of obtaining the desired information from the witness. The Bertillon and Greenleaf-Smart systems of identification are concisely and intelligently described, and the advantages of each stated. An interesting and important chapter is that on "The Destruction and Attempted Destruction of the Human Body by Fire and Chemicals;" for on the determination of the human or animal source of the remains frequently depends the legal conduct of a given case, and the guilt or innocence of the accused. A chapter not usually found in works on Legal Medicine, though of far more than passing significance to both the medical expert and the attorney, is that on the medicolegal relations of the X-rays. The responsibility of pharmacists in the compounding of prescriptions, in the selling of poisons, in substituting drugs other than those prescribed, etc., furnishes a chapter of the greatest interest to everyone concerned with questions of medical jurisprudence. Also included in the work is the enumeration of the laws of the various States relating to the commitment and retention of the insane. In fact, the entire work is overflowing with matters of the utmost importance, and expresses clearly, concisely, and accurately the very latest opinions on all branches of forensic medicine and toxicology.

The A. B. C. of Photo-Micrography. A Practical Handbook for Beginners. By W. H. Walmsley, F. R. M. S., F. A. A. S., Charter member American Microscopical Society, etc. New York. Tennant & Ward. 1902. Price $1.25.

This little book on the subject of Photo-Micrography with which Dr. Walmsley's name has been associated for a long time is a very clear exposition of this important subject. The camera does not have the extensive use in medical work that its merits should command, and the persual of this little volume will go far toward giving the information needed and supplying an adequate stimulus toward this sort of work.

The book is illustrated by some very excellent plates, reproductions of photo-micrographs taken by the author, and will serve as high examples of art along these lines.

Transactions of the Medical Association of Texas, 1903.

This is the largest volume of transactions this society has ever gotten out. It contains six hundred and thirty-five pages and is handsomely and substantially bound. H. A. West, M. D., of Galveston, is secre-

tary. He has held this position for a number of years and is certainly a proficient official.

Compend of Gynecology. By William H. Wells, M. D., Chief of Gynecological Staff of Mount Sinai Hospital, Philadelphia, etc. Third Edition, Revised, Enlarged. With 145 illustrations, Philadelphia: P. Blakiston's Son & Co. 1903. Cloth. 12mo. Pp. 293. Price, 80 cents, net.

This No. 7 of the series of *Quiz Compends* of the publishers does not undertake to follow the teachings of any one school, but condenses the methods used by the best instructors of gynecology throughout the country. This edition contains a section on the general therapeutics of gynecology, which adds materially to its usefulness as a students' review book for examinations. For the practitioner, it furnishes a great deal of important detail information, which he can readily examine into at short notice.

Diseases of the Ear, Nose and Throat. Quiz Compend. By John Johnson Kyle B. S., M. D., Lecturer on Otology, Rhinology, and Laryngology and Assistant to the Chair of Surgical Pathology in the Medical College of Indiana, etc. First Edition. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia. Price 50c.

This volume comes out in the well known form of the Blakiston series. Dr. Kyle states that it is intended for the student and general practitioner. The first half of the book is devoted to Anatomy, Physiology, Pathology and Bacteriology, examination and remedies and methods of applying the same to the ear, nose and throat. The remainder of the book takes up the various diseases of these organs in a brief but surprisingly complete manner, and the teachings are thoroughly up-to-date. The illustrations are very good. The book is commended to general practitioners doing some work in this specialty and who have not time to read the larger and more exhaustive works on the subject.

Literary Notices.

THE DECEMBER LIPPINCOTT'S MAGAZINE.—The Christmas number of Lippincott's Magazine is favored in becoming the medium for one of the most catchey novels of the season. Its title is "The Fascinating of Mr. Savage," and Helen Milecete is its author. In few words, it deals with the racy adventures of a young woman seeking a rich second husband. Her first had been killed in the Boer War, and she believes that her heart died with him. A good figure and five thousand dollars insurance on her husband's life being her only assets, she loses no time in starting out to "float" herself, not in a bathing suit or on a raft, but by way of a slow steamer to Europe. The Widow makes the mistake of confiding her plan to her "dearest frend," and this almost proves her undoing. The author's character work is cute and consistent, and the magnetism of the widow is so powerful as to reach the heart of the reader and create hopes for her success.

It has been a long time since Mrs. A. L. Wister could be induced to give the reading world one of her inimitable translations. "The Coat at the Furrier's, a story in letters by Ludwig Fulda, is published in Lippincott's Christmas issue and carries with it the same old-time charm that her name implies.

Guy Wetmore Carryl contributes a Christmas love-story called "The Reward of Virtue" which is bright and sympathetic. "A Redwood Santa Claus," by Jerome Case Bull, tells a story of a little boy's determined efforts to have a Christmas-tree. It is both pathetic and amusing. Alfred Sutro has written many good tales, but none better than "The Bread on the Waters." It is the story of a misunderstood proposal of marriage. A little Christmas sketch by Clinton Dangerfield called "Death and Life" is a vision full of meaning. "His Hour of Greatness," by Elizabeth Knight Tompkins, a charming story of modern life, is remarkably well written and absorbingly interesting. "His Wife" is an entertaining short story by Tryntje Dubois. A humorous contribution from Mary and Rosalie Dawson, entitled "The Pastry-Knife Pass-Over" closes the number. This is about a Christmas present which passes from one person to another until finally, in the form of a wedding gift, it returns to the girl who started it on its journey. This may be in time to sound a warning.

George Moore's "Avowals," a literary criticism of value, is continued in Part IV. In speaking of Tolstoy this critic says, "Tolstoy's extraordinarily intense intelligence is the cause of Tolstoy's folly, and his intelligence is extraordinarily narrow.

Christmas verse is contributed by Lizette Woodsworth Reese, Charles Hanson Towne, Susie M. Best, Minna Irving, Agnes Lee, and Helen M. Richardson; and the Walnuts and Wine" are spicier than ever this month in honor of the season of Good Cheer.

The country's business outlook is a subject of compelling interest at the beginning of the new year. This fact is recognized by the Review of Reviews, which devote

a large part of its January number to a survey of the situation. "The New Year: Prosperity or Depression?" is the title of a group of articles in which C. Kirchhoff, the editor of the Iron Age, treats of "The Outlook for Steel and Iron," R. W. Martin of "The Prospect for Railway Earnings," Charles M. Harger of "Good Crops and Good Times in the West," and F. W. Hawthore of "The Promise of 1904 for Trade in General." The same number has an illustrated article on "The Status of the Southwestern Oil Industry," by Day Allen Willey; an account of the long and successful fight waged by science against Texas cattle fever, by Professor Charles S. Potts; and the story of English walnut culture in Southern California, by Elizabeth A. Ward. The magazine is also unusually strong in its biographical articles; the character sketch of Elihu Root, the retiring Secretary of War, by Walter Wellman, is especially noteworthy, while the career of Fourth Assistant Postmaster-General Bristow, the investigator of the postal frauds, is attractively presented by Clarence H. Matson, and the life and work of the late Herbert Spencer, the great English philosopher, are sketched by Professor F. J. E. Woodbridge. The threatened war between Japan and Russia claims attention in the editorial department, as does the Panama situation, while the cartoon department ably supplements the editor's paragraphs on current American politics.

In the Review of Reviews for December, the Carnegie art exhibits at Pittsburg are described by Earnest Knaufft in an article which is illustrated with reproductions of famous paintings that have had a place in those exhibits, in 1903 and in previous years. Mr. Frank Fowler contributes a brief article *apropos* of the current portrait show in New York. The promised production of Wagner's "Parsifal" at the Metropolitan Opera House in New York is the subject of an illustrated article by Lawrence Reamer. A very timely account of "Progress among the Moros" is contributed by chaplain Cephas C. Bateman, of our army, while Dr. W. P. Wilson outlines the main features of the proposed Philippine exhibit at the St. Louis world's fair in 1904, employing many striking photographs to illustrate the various aspects of Philippine trade and industry. Among what are known as the "bookish" features of the number, Mr. W. T. Stead writes by far the most interesting and important review of Morley's "Gladstone" that has yet appeared on this side of the Atlantic; Librarian Elmendorf, of the Buffalo Public Library, contributes an extremely suggestive paper on a boy's reading; and there is the usual December grouping of illustrated notes on the season's novels, histories, biographies, travel sketches, juveniles and holiday gift books. Altogether, a "Christmas Magazine" with real staying power.

The marvelous industrial development of the United States during the last decade contains no record that can compare with the growth of our great iron and steel industry. The whole fascinating story of the evolution from very small beginnings of the wonderful aggregation of coking ovens, blast furnaces, and rolling mills, which render the valley of the Monongahela the very center of the world's iron and steel industries, has never been told. In a special number devoted to Iron and Steel exclusively, the Scientific American presents an authoritative account of how we have outdistanced all other countries in the production of iron and steel. How wonderful that development has been, is shown by the mere fact that in 1810 there were produced in the United States but 53,908 tons of pig iron, and that in 1902 the total output of pig iron passed far beyond that of our nearest competitor, Great Britain, reaching the huge total of 17,821,307 tons. How this vast output of pig iron is converted into armor plate, gun steel, structural shapes, tubes, rails, and steel and wire, besides a host of other things, it is this special number's purpose to tell.

Those interested in American "society" often express an opinion that the so-called "smart set" is a newspader-made plutocracy and that America is unique in this respect. To read Lady Henry Somerset's article "British Social Life," in the December Cosmopolitan, corrects this view. Lady Somerset is an important member of the old aristocracy, and her article on the new fashionable London of to-day is at once an interesting commentary on the tendency of the times and a protest against some of its more harmful features.

Abstracts of the Leading Articles of the Month.

Typhoid Gangrene of the Lower Extremities.

Ricketts (*Cincinnati Lancet-Clinic*) has collected 134 cases. He says:

Sudden pain in extremities at any time during typhoid bad omen.

Near Poupart's ligament the more dangerous.

Pain does not always indicate location of clot.

Clot most frequently in popliteal artery.

Rapid progressive gangrene beginning at toes indicates occlusion of aorta, iliac or femoral artery in Scarpa's triangle.

Slow progressive gangrene indicates occlusion of vessels from below upwards, especially in early stage.

Line of demarcation forms sooner during convalescence, but femoral or even the iliac may be occluded; even when it forms in lower leg may not form for six months.

Partial occlusion of vessel may occur during attack or convalescence with recovery, but complete occlusion may become gradual and gangrene take place one year later, as in Estlander's case.

The want of collateral circulation may be due to anomalous circulation.

Partial occlusion of one or more vessels may occur without gangrene, even though sensibility be impaired.

Cocain used subcutaneously or by blocking the nerve trunk may become an important factor in amputating extremities during typhoid fever.

The Action of Apocodeine.

Dixon (*Four. of Physiol.*) finds that it very readily paralyzes nerve cells in exactly the same way as nicotine, but differs from the latter in that there is no initial stimulation. After the nerve cells have been paralyzed by apocodeine, nicotine on injection produces none of its usual effects such as rise in blood-pressure, vaso-constriction, etc., while the action of adrenalin remains unimpaired. As a result of this paralysis, arterioles dilate, blood-pressure falls, the heart beats more rapidly, and the automatic movements of plain muscle are all increased. Recovery is very slow. It is suggested that the increased peristaltic movements produced by the injection of many of the opium alkaloids and their derivatives is due to depression of the inhibitory sympathetic nerve cells. In a series of four of these alkaloids the purgative action varies directly with their paralytic effect in sympathetic ganglia. Reflexes are increased and strychnine-like convulsions are even sometimes seen. This is probably an effect on the sensory side of the cord. It is also suggested that nicotine directly stimulates the motor nerve cells in the cord, and that adrenalin diminishes resistance to impulses, especially in the motor side of the cord. Larger amounts of apocodeine paralyze the motor nerve endings in voluntary muscle like curare. The vagal endings in the heart are paralyzed as in the case of atropine. With still bigger doses after a preliminary stimulation, paralysis of vaso-motor nerve-endings is produced. When this action is complete pilocarpine, physostigmine and adrenalin have no effect on the blood-vessels or blood-pressure, whilst barium and digitalis will still constrict the vessels and raise the blood-pressure. The effect of digitalis is, however, considerably diminished. The former three drugs therefore act on nerve-endings, and the latter two directly on muscle. The motor and inhibitory nerves to the intestines are paralyzed and, therefore, adrenalin and pilocarpine have no action. Other nerve-endings such as the hypogastrics are not effected, and adrenalin still produces its normal inhibition and pilocarpine some augmentation of movement. The accelerator nerve-endings in the heart are paralyzed. This effect is relatively easy to produce in the young animal. Adrenalin, caffeine and aconitine in large amounts quicken the normal heart, even when the vagi are paralyzed and it is profused artifically outside the body. After apocodeine adrenalin no longer accelerates, but caffeine and aconitine can still quicken. The latter two drugs, therefore, affect the heart muscle. The antagonism between apocodeine and either adrenalin or pilocarpine is on tissues, and is probably not the same as that between atropine and pilocarpine. On the intact animal apocodeine produces erection of the hairs over the face area and back, and edema of the face. The former effect is due to peripheral sympathetic excitation, the cause of the latter is doubtful.

The General Therapeutic Management of Febrile Diseases in Children.

Caille (*Post-Graduate.*) Remarks on Fever Diet.—An exclusive milk diet for children up to 8 mos. In diarrheal diseases, a dilution of milk, or longer intervals is indicated, boiled and cooled water. For older children, toast water, farinaceous water, egg albumen in water, soups, gruel, cornstarch, pap, etc. Milk is contraindicated in dyspeptic and inflammatory diarrheas and in cases of milk idiosyncrasy, and typhoid fever with marked tympanitis. Rectal enemata are sometimes useful.

Diet in Convalescent Stage. — Milk, cereals, eggs, beef jelly, break, scraped meat, biscuit, etc. Gavage is indicated (1) when patient refuses to take food, when rectal alimentation is insufficient, (2) in intubation cases where children cannot swallow, (3) in habitual vomiting, (4) premature infants and cases of extreme malnutrition.

Stomach Washing in Children.—When clear cry of child is heard, tube is not in larynx. Do not overfill stomach. Indicated in acute gastritis, acute poisoning, cholera infantum, chronic indigestion with atony, difficult feeding, persistent vomiting and before operations on stomach. Indications

for flushing colon by rectal enema are: To secure bowel action. (2) stimulate in circulatory failure, (3) renal insufficiency, uremia, (4) jaundice, (5) reduction of temperature, (6) replace body fluids, (7) overcome intestinal obstructions, (8) nourishment.

Baths.—Vary from packs and simple sponging to complete immersion in plain or medicated water. Under this head, for the reduction of temperature, author discusses drugs like antipyrin, quinin, etc.

Drug Stimulation.—Alcohol, camphor, strychnin, nitroglycerin, etc.

Dyspeptic Symptoms.—Nausea treated by dilute hydrochloric acid, aerated water, ice tea. Emesis for coated tongue. Lavage for gastric intoxication. Thirst relieved by ice, water, sucking raw prunes. Always empty bowels in acute illness by laxatives. Good to use diaphoretics and diuretics.

Phototherapy and Radiotherapy.

Boggs in the (*Pennsylvania Medical Journal*) says that the advancement already made with this means of treatment is convincing as to its far-reaching possibilities. The general effects of the sun's rays on metabolism, on disease germs, on dampness, etc., is referred to; also the fact that the health of the average individual is better in summer than in winter, because the sun's rays can then more easily reach the body. In the spectrum of white light we have the greatest heat rays beyond the visible red, and the richest chemical rays beyond the visible violet. Beyond the infra-red rays are the Hertian waves, used in wireless telegraphy, and beyond the invisible ultra-violet are the Becquerel rays, which give off uranium and other salts. The x rays probably lie beyond the Becquerel rays. The ultra-violet rays are actinic, fluorescent, bactericidal, and can discharge a body when negatively electrified. The Finsen light is composed of the blue, violet, and invisible ultra-violet rays of the spectrum. These are chemical rays, and must be passed through rock crystal rather than through ordinary glass. They produce, in a painless manner, an erythema which passes away more rapidly than that which is produced by the x ray. The x ray has been successfully used in the treatment of cancer, lupus, tuberculosis, acne, eczema, psoriasis, tinea tonsurans, favus, sycosis, rodent ulcer, keloid, sarcoma, and goitre. The dosage must be varied, of course, with different conditions and susceptibilities. On normal tissues the following results have been observed: 1. Small doses stimulate and increase nutrition. 2. Slightly larger doses cause mild erythema. 3. Moderate doses, long continued, will cause atrophy or degeneration. 4. Large doses will cause inflammation with increased supply of blood. Leucocytosis will occur, followed by stasis, the circulation being cut off the tissues will die from want of nourishment. 5. If necrosis has resulted, the necrosed tissues will decompose and will be discharged or absorbed. 6. If normal and diseased tissues are treated at the same time the former will not be injured unless the dosage is large and the latter will be destroyed. 7. The treatment will vary according as the effect desired in stimulation, atrophy, inflammation, or necrosis. The author reports some cases.

Infectious Diseases among Negroes.

Plehn (*Virchow's Archiv.*) It is an interesting fact that the uncivilized negro is almost immune toward many infectious diseases which are common and fatal among the whites, but that he has in malaria and dysentery formidable enemies which oftimes decimate his rank. Tuberculosis, scrofulosis and rachitis are hardly ever seen, syphilis is rare and runs a mild course, tabes and progressive paralysis has never been observed, and only a few cases of malignant tumor and leprosy have been met with. Even contused wounds heal rapidly, and if an infection occurs, it is generally mild and circumscribed. Despite indiscriminate sexual intercourse, gonorrhea is not usually followed by its disagreeable sequelæ, and sterility among women is not encountered often. Diseases which do not occur at all are anthrax, glanders, hydrophobia, diphtheria, and scarlet fever, while measles is common, though mild. Smallpox plays an important role in the tropics, but it often appears more like a skin disease than a constitutional infection. Vaccination does not seem to protect as well as in Europe. The negro race seems to be rather insusceptible toward yellow fever, and plague, exanthematic typhus, cholera, recurrent and Malta fever are only introduced occasionally. Typhoid, on the other hand, is more common and presents the usual course, except that diarrhea is often absent, and cerebral symptoms are especially marked. A large percentage of cases are not real typhoid, but colon infections. The most important disease undoubtedly is dysentery of amebic origin, though it also runs a mild course, and is readily controlled with calomel and bismuth. Pneumonia presents the following peculiarities: It frequently begins centrally, often affects one or both upper lobes, and the local signs may change place. The onset is not acute, but slow, with bronchitis. Serous exudation into the pleura does not complicate the disease, which seems to speak for the tuberculous nature of

the former. Mumps is frequent, and mild and acute articular rheumatism frequently attacks the natives, causing considerable suffering, but never involving the serous cavities or the endocardium. Most cases of beriberi run very acutely and are often fatal in twelve to forty-eight hours. The entire symptom-complex points toward a severe infection, involving especially the sympathetic and vagus nerves; despite abundant material it was, however, impossible to determine the nature of the poison and its probable portal of entry. No drug has a favorable influence upon the disease and morphine, which must be given freely on account of the intense pain, seems to hasten the end. The condition of the liver at autopsy is interesting, since it often shows interstitial changes, besides marked degeneration. The opportunities for studying malaria are especially favorable in western Africa, since it forms a veritable scourge for the black race. It is a mistake to believe that one attack protects from others, though it is common to find plasmodia in the blood as harmless parasites, without causing fever. Even young infants are as a rule infected, though not ill. The parasites are not entirely latent in these cases, since an anemia with splenic tumor will gradually develop. The blood examination is of less value for the diagnosis of an obscure disease, since one cannot always tell if the plasmodia are active and latent. A relative immunity is frequently seen, so that subsequent attacks are much milder, and this may account for the low mortality. All three forms of parasites, together with transitional types in all possible combinations, may be detected in the blood in actively infected negroes. Quinine generally acts very promptly. In conclusion, the author states that the remarkable resistance of the negro cannot alone be explained by the absence of alcoholism, tuberculosis and syphilis; it is a racial peculiarity which is gradually lost with civilization.

Gastric Cancer.

Moynihan (*The London Practitioner*) says: 1. Will palliative operation on the stomach prolong life? 2. Will it make the remnant of life more tolerable and the patient feel that the ordeal of the operation is justified in the greater comfort that he has obtained? 3. Will resection give reasonable promise of cure? 4. Will it not, if followed by recurrence, give increased length of days and better health? Kronlein's statistics are quoted and his conclusions stated, namely, that carcinoma of the stomach without operation is usually fatal within a year; that gastro-enterostomy prolongs the life of the patient for about three months on an average and that gastrectomy, so far as it is followed by recurrence, prolongs the life on an average fourteen months. Milkulic' statistics are also given and compared. The results are almost the same as those of Kronlein, though the number was considerably greater. He says it must be admitted that rarely obtain cases early enough to be hopeful and until more accurate methods of diagnosis are established, it is absolutely imperative that we should have recourse to exploratory laparotomy. To better our results we must explore not to confirm, but to make a diagnosis. While gastro-enterostomy has been spoken of unfavorably, excepting where there is pyloric obstruction, by Kronlein, von Mikulicz and others, Moynihan says there is no doubt it is occasionally productive of remarkable benefit, even when the growth does not actually obstruct by its blocking of the passage of food. In the majority of cases, however, little or no benefit results. If after exploration a growth is found obstructing the pylorus or narrowing the stomach and causing an hour-glass condition, or if food stasis is present gastro-enterostomy will give very decided relief, but if the growth is confined to one or other of the curvatures without stenosis or stasis, this operation will not prolong life or make it more comfortable. The operation of gastroctomy in the hands of von Mikulicz, Carle and Fantino has given less mortality than gastro-enterostomy. It prolongs life more and there is a greater degree of comfort to the patient. He is relieved by the removal of a foul ulcerating growth and while, in the majority of cases, the growth will recur either locally or generally, the question arises whether it should not be performed deliberately as a palliative operation even when an early secondary deposit can be seen elsewhere. The writer sums up its advantages over gastro-enterostomy thus: In the most competent hands its mortality is even less; that prolongation of life for ten months longer than the period for gastro-enterostomy is the rule and that the comfort, general health and appetite are all emphatically better and the patient has a chance, though it may be a slim one, of complete recovery. Taking all these into consideration no doubt the operation of choice will be gastrectomy. If it is found on opening the abdomen that neither of these operations can be performed, some relief may be obtained by performing duodenostomy or jejunostomy. The scope of these operations is limited, but where prolongation of life for a few weeks is of great importance they are justified. The operations are simple, easily done, cause

little or no shock and if it is necessary can be done under cocain anesthesia.

The Control of Haemorrhage in Pelvic Operations.

Sampson in the (*Johns Hopkins Bulletin*) gives several cuts showing the methods which he advocates. The steps of his procedure are as follows: (1) The lower end of the abdominal incision is opened sufficiently to admit the proctotcope. (2) The sterilized proctoscope properly lubricated is pushed down into the pelvis. Its obturator is then removed and the pelvis inspected, reflected light being introduced by means of a head or hand mirror. The obturator must be replaced if the instrument is to be carried more deeply into the pelvis. (3) The pelvis is then packed with gauze by means of a forcepts or a packer, the proctoscope being turned as required to permit one to reach the various parts of the pelvis. If the lumen of the instrument becomes filled with gauze the instrument must be removed and reinserted, the packing being then continued. (4) The ends of the separate pieces of gauze should be folded over the incision and covered with gauze pads. Pressure from without should be exerted by means of a tight abdominal binder. The vagina is packed by placing the forefinger under the cervix, raising the latter and carrying the gauze behind and under the cervix. The vagina should be packed firmly and a snug fitting T bandage be applied. The advantage from the use of the proctoscope are facility in discovering and relieving hæmorrhage, comparative painlessness, absence of danger from infection, if the instrument has been properly sterilized. In order to reach the bottom of the pelvis the proctoscope should be at least eighteen centimetres long, with a diameter of two and five-tenths centimetres.

Indications for the Mastroid Operation.

Lee Wallace Dean (*New York Medical Record*) states that mastoiditis is usually caused by an involvement of the membrane lining of the opening which connects the antrum of the mastoid with the middle ear. The swelling of the membrane occludes the opening, from which there results stagnation of the secretion in the cavities of the mastoid. If pyogenic micro-organisms develop in this secretion, mastroiditis takes place. Although in most cases of mastoiditis the characteristic symptoms are marked enough to make diagnosis comparatively easy, there are cases, especially those of tuberculous origin, in which all these symptoms may be absent, and yet there may be very extensive necrosis of the mastoid cells. This destruction may take place without any pain. When mastroiditis developes, it is best, in the beginning, to give laxatives and apply, by means of Leiter's tubes, cold over the region of the mastoid. If there is decrease in the intensity of the disease within two or three days, the treatment should be kept up. If, however, the disease becomes worse, or even remains at a standstill, or if symptoms of meningeal disturbance develop, operation should be performed without delay. The danger in mastroiditis lies not in the operation, but in not operating. There is little danger if the operation is performed under perfectly aseptic conditions; the patient will suffer little discomfort besides that which results from the anæsthesia. The patient may die as the result of the previous condition, but very few die as the result of the operation.

Treatment of Vesical Papilloma by Injections.

Herring (British Medical Journal) says that recurrence of papilloma after removal by suprapubic cystotomy, which unfortunately very frequently occurs, may be effectually held in check by injections of silver nitrate. If injections are made when it has been found impossible to remove the growth entirely by operation, the recurrence of the symptoms is retarded longer than could be expected without the treatment. Much of a tumor may be removed by the urethra without serious hemorrhage, and a result gained equal in some cases to a suprapubic operation. There is reason to hope that papillomatus growths may be entirely destroyed by long-continued applications of silver nitrate. The conclusions therefore that my be drawn, although confirmatory evidence is needed, are:

(*a*) That injections should be made after operations for the removal of the growth, whether the operator is satisfied that he has done so efficiently or not.

(*b*) That the urethral route should be tried when removal of the papilloma is contemplated before a more serious operation is undertaken.

The question whether most cases of papilloma should be operated on through the urethra before the injections are commenced, even when the diagnosis is made early and the tumor is small, or whether injections alone should be relied upon, requires further investigation. He would be inclined under favorable circumstances to give the former plan another trial; for, in the first place, the operation need not be severe nor attended with serious consequences, if strict attention is paid to sterility in instrumentation; secondly, the improved instruments recently made by Leiter, and the advantages derived from adrenalin in

stopping hemorrhage, render manipulation more certain; and thirdly, the size of the tumor to be attacked by the injection afterward will be less even if only small portions are removed, and consequently the time required to check the disease shortened. In the female he has no doubt that this is the proper proceeding. Suprapubic cystotomy can hardly ever be wanted when access to the bladder is more easily gained through the urethra by the means of Kelly's tubes.

Value of Vaginal Caesarian Section.

Stamm (American Gynecology) says that to Duhrssen, of Berlin, the credit is due for having introduced this valuable method into practice. The clinical reports of operations undertaken on various indications speak in favor of its value. The indications for the operation, as given by Duhrssen, are: (1) Abnormal conditions of the cervix and lower segment of the uterus (carcinoma, myoma, rigidity, stenosis, partial pouch-like distention of the lower uterine portion.) (2) Dangerous conditions of the mother, which may be removed or relieved by prompt emptying of the uterus; affections of the heart, lungs, and kidneys. (3) Conditions of the mother in which death is imminent. The last two indications are of value only in cases when the cervix is closed and not dilatable, or where the depressing influences of labor pains should be obviated, as in affections of the heart and lungs. In pregnancy complicated with cancer of the uterus Duhrssen advocates immediate vaginal section with consequent extirpation of the uterus, no matter at what time of pregnancy or at what stage of labor this condition is encountered.

The Present Problems of Surgical Interference with Fibromatous Uteri.

Abnead (British Gynecological Journal) discusses the various methods of operative treatment, including supravaginal hysterectomy, complete removal of the uterus per vaginam, and enucleation of the tumors by abdominal section or per vaginam. Myomectomy leaves the patient in full sexual capacity and health, and extends the indication for the surgical treatment of myoma very widely. In exceptional cases, where the myoma is of doubtful nature, hysterectomy may be necessary, but mymoectomy, after opening the abdomen, is the operation of choice, because all the nodules can be seen with the eye and all vessels tied. Peritonitis, formerly the bugbear of operation, is not to be accounted a serious danger nowadays, when the modern methods of asepsis and antisepsis are used.

Taking into consideration the methods of surgical interference now practiced and the results obtained by them, he comes to the following conclusions: (1) Earlier surgical interference is to be desired in cases of myomatous uterus; (2) the ideal method of operation is myomectomy, when this is fully conservative and does not maim the patient, and this completely conservative method of cure naturally widely extends the indications for removal of myoma of the uterus; (3) the field for conservative vaginal myomectomy is limited; (4) hysteromyomotomy being in all its aspects a maiming operation, should be limited to special cases; (5) when the diagnosis is established in an early stage the vaginal method of hysteromyomotomy is to be chosen; it is the safest way, and the asepsis does not require to be so perfect.

Lorenz's Method of Treating Congenital Dislocation of the Hip.

Clarke (The Practioner London) describes the operation in full, and reports a number of cases. Clarke fully endorses the method and takes up the question of the proper attitude of the medical profession with regard to children afflicted with this congenital dislocation. One of the English medical journals has recently published remarks which include the following: "Is it true that the risks of sepsis and hemorrhage are removed by this operation; but the tissues around the joint are violently lacerated. . . . A judicious hesitancy should characterize the surgical mind until we have more certain data on which to found an opinion." He says that with reward to the first part of this judgement it must be observed that the mention of the parts "around the joint" as being lacerated shows that the writer himself was unfamiliar with the operation. It is only some of the adductors, which are on the minor aspect of the limb and not around the joint, that are "lacerated" and that not "violently." The successive hacking with the hand on the tense adductors, gradually produce a real separation of the fibers of the adductor longus, and in some cases of the adjoining fibres of other muscles of the adductor group. The term "violent laceration" is, however, not appropriate, and in patients who are subjected to treatment at the most suitable age—that is, up to five or six years—it is altogether misleading. There is, with regard to these cases, certainly no urgency such as exists in many surgical conditions, but it is hard to see what more "certain data" can ever be forthcoming than are already to hand for those who choose to seek. Many completely successful results, verified by skiagrams and the evidence of unimpeachable witnesses, have been published and shown at professional gatherings in Europe and America. It is most import-

ant that the patients now being operated on in England, with the benefit of the improved methods which Lorenz has patiently taught us, should be kept carefully in view, and that the results should be published and, where possible, demonstrated in about two years' time, because ocular demonstration is more convincing than records. But how many are the patients who, if kept waiting for two years with a "judicious hesitancy," will have attained or passed the average age-limit for the success of the treatment—it is more than an operation—or will have passed the time when the operative part of the process can be performed with ease and safety and will thus be subjected to wholly unnecessary risks? The opinion of Hoffa whose treatment of congenital hip-dislocation has been largely superseded by that of Lorenz, and who is unlikely to be biased in favor of the latter's method, is as follows: "In any case, Lorenz's method is a great advance, for the chief thing is that the functional result of the method for the most part highly satisfactory. The children with unilateral dislocation often walk so well that one can scarcely detect a trace of their former defect, and those with double dislocation lose their lordosis and walk at the most with a trifling swaying of the trunk." The author thus sums up: Lorenz's method of treating congenital dislocation of the hip is based on correct anatomical and physiological grounds; it is the outcome of an exceptional experience both of open and subcutaneous operating; in a considerable proportion of cases it gives a perfect anatomical and physiological result (*i. e.*, it cures a condition hitherto deemed incurable); in a still greater number of cases it affords a permanent functional improvement that relieves the patient of the grievous disabilities which the deformity usually entails if left untreated. In the remaining cases in which the method fails to give a firm articulation placed anteriorly, the manipulative operation of Lorenz is a necessary preliminary to any subsequent treatment by open operation that may be undertaken. The manipulative operation is free from danger save when treatment has been too long delayed.

Suburethral Abscess in the Female.

Miller (American Gynecology) has seen three cases of suburethral abscers. They were essentially chronic when they came under observation. Calculi had been found in some cases, and could have caused suppuration by lodging in the urethra, but this cannot always be proved, since they may have been formed from the urine primarily in the sac. Gonorrhea was an existing cause in one of the author's cases, and may have been the cause in a second case, while in the third instance the sac was probably formed from a diverticulum. Two of the women had borne children, while the one in whom the abscess originated in the diverticulum had not.

The symptoms are principally painful urination and a sense of heat and aching distress in the urethra. In cases of abscess discharging from the internal urethral opening, frequent urination and tenesmus are noted, becoming more marked, according to Skene, the nearer the sac is situated to the neck of the bladder. Pus is discharged, sometimes suddenly; at other times it oozes constantly from the urethra and may be mixed with urine. In one of the author's cases it was discharged into the urethra during coitus.

By making pressure through the vagina downward along the urethra, the sac can be emptied readily. Palpation will detect the thickened edges of the wall of the urethra, if the trouble has followed perurethral inflammation. On introducing the urethral speculum, a congested mucosa is revealed, and on withdrawing it pus suddenly passes into the urethra as the abscess orifice is passed. A bent probe can be introduced and the sac further explored. Urethrocele and sacculation of the middle third of the urethra can be easily confounded with these abscesses. There is the same painful urination, and there may be loss of control of the bladder, but a probe will disclose the small abscess opening and anterior urethral wall in its proper position. Dilatation of the urethra and passage of the finger is of special dagnostic and therapeutic value.

In the cases in which the urethra can be thoroughly dilated, and the abscess opening enlarged, so that the pus can escape readily, spontaneous cure frequently occurs, but when the condition is the result of periurethral inflammation, this is not always feasible. The best treatment probably consists of incising the acscess sac, after which a retention catheter should be worn, or the bladder at least emptied at regular intervals with a soft rubber catheter, in order to prevent infection of the wound.

Small incision was all that was necessary in the author's three cases.

With thorough incision and cleanliness of the sac and vagina, and employment of the catheter, most cases will close within eight to ten days.

Treatment of Puerperal Infection.

Burtenshaw (International Medicine Magazine) says that hysterectomy for puerperal sepsis has never been accepted with much favor. As Davis says, if operation is per-

formed sufficiently early to insure a good result, one can never be certain that the operation was absolutely necessary.

The author refers in this brief paper to the necessity of evacuating pus collections in puerperal infection wherever they may occur.

To neutralize the effects of the germs invasion, it is of the greatest importance to promote frequent and thorough evacuation of the bowels. The consequences of autointoxication from retained intestinal contents, even in health, are too well known to demand elaboration here, but the frequency with which the colon bacillus is found as a complicating factor in septicemia would point to the necessity of keeping the canal clear. The action of the kidneys should be encouraged. Aside from the fact that urinary infection in the puerperium is most frequently due to the colon bacillus (Webster), the necessity of promoting free diuresis will be apparent. No more effective agent for this purpose is at our command than the saline solution.

The administration of antistreptococcic serum has been disappointing. Marmorek himself long since practically repudiated the claims he advanced in its favor in 1895, although recent reports from Germany show that it is still being used. Good results have been reported of late from the use of Aronson's immunizing serum, but available data on the subject are scarce. The results of the investigation of antistreptococcic serum, made by the committee appointed by the American Gynecological Society in 1898, have been frequently quoted. This committee collected reports of all cases of puerperal sepsis in which the serum was used from the date of its introduction, 1895, to April 1, 1899. The total number of cases was 352, the mortality, in which bacteriological examination was made, 30.69 per cent; in cases in which no bacteriological examination was made, 15.85 per cent.

The intravenous injection of formalin solution, brought forward by Barrows during the present year, has met with little, if any, favor.

Pryor's method, of opening the posterior cul-de-sac and packing the pelvic cavity with 10 per cent iodoform gauze, the author considers an excellent one. It is well known that in all forms of sepsis, and especially in that of the puerperium, Pryor's investigations have shown that the iodine reaction in the patient's urine can be demonstrated within two hours of the introduction of the gauze. It would appear that that author's work has been along lines that will yield exceptionally satisfactory results in the future.

The favorable results that have been obtained from injections of normal salt solution, whether intravenously, subcutaneously, or by the bowel, are so well appreciated that it would appear hardly necessary to refer to them here. It is known that in no other affection do the red corpuscles of the blood suffer destruction so constantly and to such an extent as in puerperal sepsis, and in no other is the loss of hemoglobin so pronounced. In a great majority of such cases, also, leucocytosis is marked. At the same time, even in every grave cases of puerperal septicemia, the existence of streptococci in the blood cannot be demonstrated. This is not proof, however, that the toxins generated by these germs do not circulate in the blood current. It is still a mooted question as to the manner in which salt solution exerts a favorable influence in these cases. The term "lavage du sang," or washing of the blood, would appear to be particularly significant in this connection. There can be no doubt that the salt solution performs this function. Whether or not it exerts a destructive action on the germs themselves is not known.

The Structures Taking Part In Menstruation.

E. E. Montgomery, (Therapeutic Gazette, Nov., 1903): The latest theory upon the subject is that which has been recently introduced by Fraenkel, and consists in the view that the Graafian follicle, rupturing, fills up with blood, which becomes organized in the form of gland structure, which produces a secretion causing nervous irritation and its influence upon the blood which develops the menstrual molimina, causing the changes in the uterus and the menstrual cycle. In those cases in which the ovum has become impregnated the retention of the Graafian follicle affects the nutrition of the ovum and prevents its being discharged by the uterus. He emphasizes the well-known fact that the removal of the ovary brings about a cessation of menstruation, and asserts that it is not the removal of the ovary itself, but the removal of the lutein cells of the corpus luteum, that causes the atropy of the uterus and its tendency to throw off its contents if this structure has lost its influence early in the gestation. His demonstrations would indicate that the destruction of the corpus luteum brings about the arrest of the pregnancy, and the cessation of the menstruation with its retention, even although the major portion of the ovary be removed, will maintain the nutrition of the uterus and the continuance of the pregnancy. Without question, then, the ovary or portions of its structure are essential to the occurrence of menstruation. Menstruation, however, does not take place

from the ovary, but from the mucous membrane of the tube and the uterus. The association of the Fallopian tube in menstruation has been seriously questioned, and of course is somewhat difficult to determine. The number of cases which have been reported would justify the suspicion that the Fallopian tube took part in the discharge of blood associated with menstruation.

Fistula Between the Portal Vein and the Hepatic Duct.

Moncrieff (Australasian Med. Gazette) reports a case of fistula between the portal vein and the hepatic duct. An operation for gall-stones was performed on a man, and a large calculus was found in the common bile duct. The latter was incised longitudinally. As soon as the calculus was removed there was a gush of blood as if a large vein had been opened. The hæmorrhage was controlled by four forceps which grasped the edges of the incision, and finally by means of a large tube stuffed with gauze. A few hours later the movements of the patient displaced the plug, and death occurred from hæmorrhage into the peritoneal cavity. At the necropsy the common duct was found to be greatly dilated. It was of about the size of a thumb, its mucous membrane was roughened, and its walls were thickened, and contained a little mucoid blood-stained fluid. The hepatic ducts were full of dark, clotted blood. At the traverse fissure of the liver the portal vein showed a discolored patch under the intima about a centimeter in diameter. In this was a small opening with clean-cut edges like the mouth of a vein. On introducing a probe the intima was found to be dissected up and the discoloration to be due to effused blood. The probe could be passed on into one of the large hepatic ducts just as its origin from the common duct. Evidently blood had passed directly from the vein into the ducts, and escaped when the stone which acted as a plug was removed. On section of the liver all the small bile ducts were found to be full of clots. Microscopic examination of the liver showed an increase of small round cells in the ramification of Glisson's capsule. The cause of the communication between the portal vein and hepatic duct was not obvious. Perhaps the calculus at one time lay over the opening in the hepatic duct, and by pressure gave rise to necrosis. The appearance of the blood contained in the ducts was compatible only with recent hæmorrhage, for the clots were soft and dark.

Ascending Renal Infection; Reflux of Urine as an Etiologic Factor.

J. A. Sampson (Johns Hopkins Bulletin, December, 1903), concludes:

(1) The vesical portion of the ureter changes under the various degrees of dilation and of intra-vesical tension of the bladder, and in each of these conditions one may find special provision for guarding the lumen of the ureter and thus preventing a reflux of urine from the bladder into the ureter. Under all conditions of the bladder the direction of the current of urine from the kidney to the bladder is a constant factor in the prevention of ascending infection. In addition there are present:

(a) In the distended bladder, the very oblique course of the ureter and the long ureteral valve, the lateral walls or labia of the ureteral orifice, and the mucosa of the ureter.

(b) In the contracted bladder, the course of the ureter is less oblique, the ureteral valve is shorter and these factors apparently play a less important part in the protection of the ureter, than they do in the distended bladder. On the other hand additional protection is afforded by a puckering of the ureteral orifice; the ureteral labia may come together, and the ureteral mucosa is thrown into folds.

(2) The anatomic structures and physiologic action of the ureters as well as clinical experience would indicate that the function of the ureters is not only to carry urine from the kidneys to the bladder but also to prevent fluid from passing into the ureters from the bladder, and that under normal conditions it is impossible for the latter to take place. Cases have been reported which contradict this statement. The fact that an occasional case has been reported in which apparently a reflux has occurred, especially when nothing is known of the condition of the ureteral orifice in these instances, cannot be regarded sufficient evidence for supposing that it may occur in all cases.

(3) Organisms may be conveyed from the bladder to the kidney through the following channels:

I. The general circulation.

II. The vesico-utero ovario-renal anastomosis. There is both a venous and an arterial communication between the renal and vesical vessels.

III. The blood vessels of the ureter. The renal and vesical vessels may communicate with each other through the free anastomosis of the ureteral vessels.

IV. The lymphatics. The communication between the lymphatics of the bladder and those of the kidney is indirect either through the local glands of the bladder and kidney or through the lymph vessels of the ureter. (Sakata.)

V. The lumen of the ureter. This may be as follows:

(a) By injuries to the intra-vesical portion of the ureter.

(b) By the extension of an inflammatory process from the bladder through the ureteral walls or along the lumen of the ureter. This is probably the most frequent way.

(c) By organisms traveling up the ureter, especially when the current of urine from the kidney to the bladder is interfered with by a stricture or something occluding the lumen of the ureter.

(d) By a reflux of urine from the bladder into the ureters, which may be due to:

1. Intra-vesical pressure, forcing the urine into the ureter.

2. Reverse peristalsis on the part of the ureter carrying urine from the bladder into the kidneys.

3. By suction of air into the ureters, when patients are examined in the knee-breast posture, through an open cystoscope.

The reflux of urine from the bladder into the ureters may be considered an etiologic factor in the causation and maintenance of renal infection only when the intra-vesical portion of the ureter is diseased, thus impairing its function, or when some ureteral abnormality exists.

Two accessory etiologic factors of great importance in the causation of renal infection must be considered:

(1) An injured kidney, that is, one which presents lowered local resistance. The most frequent cause of this is probably a ureteral stricture due to cystitis or calculus.

(2) General ill health of the patient, that is lowered general resistance.

Brain Weight in Relation to Occupations.

According to the Medical Press and Circular the convolution-forming capacity of the cerebrum is well known to be in direct proportion to the position in the animal scale of its owner. Anti evolutionists view with disfavor the development of fresh convolutions in the brains of apes as the result of the acquirement of new acts and habits, though they are willing enough to believe that the process takes place in their own mental organs. It is only natural, therefore, to find that the more highly specialized the human mind becomes through education and scientific training, the more intricate and crowded with nerve-cells is the cortex cerebri found. Dr. H. Matiegka, in his work on "Brain Weight and Cranial Capacity," adduces some most interesting facts bearing upon this relation. Thus, the weight of the brains of those day-laborers who are incapable of learning a trade or remaining in steady employment averaged 1,410 grammes. The brains of those workmen with greater intelligence and responsibilities, such as porters and watchmen, rose to 1,449 grammes, while in the highest class of all, men of marked mental abilities, scholars and physicians, the average brain weight was 1,500 grammes. It was also observed that among the laboring classes, those engaged in manual labor have heavier brains than those employed in more sedentary or unhealthy work. It would appear that alcoholics have a very low average of brain weight.

Man's Responsibility in Sterile Marriages.

Prioleau (Amer. Med.) says statistics go to prove that specific urethritis is most often the cause of sterile marriages. It is assumed that 80 per cent, of the men in large cities have had or now have gonorrhea. Much blame is charged to physicians that young men are not told the consequences of an uncured urethritis.

As to the epididymis, Gouley states that it is involved in 30 per cent. of all cases of acute urethritis. When there is a double epididymitis at least 50 per cent. of the patients will be absolutely sterile. Stricture of the urethra is another cause of sterility. Syphilis, which although not so common as gonorrhea, still ranks high as a producer of sterile marriages. It acts, however, on the product of conception rather than on the procreative germ.

He offers the following as a means of preventing these diseases and their consequences: 1. Lectures on venereal diseases to students in high schools and colleges. 2. Making sure that every patient under a physician's care shall not be dismissed until there is positive evidence of a cure. 3. Every venereal patient should be thoroughly informed of the results to himself and wife. 4. Family physicians should inform parents of marriageable daughters as to the seriousness of venereal diseases, and advise them to insist on a certificate of good health from the man about to marry their daughter signed by a reputable physician. 5. Establish state laws, making it a crime for a man or woman to marry while suffering from venereal disease.

The Treatment of Nocturnal Incontinence of Urine in Children.

Hopkins (N. Y. Med. Jour.) believes nocturnal incontinence of urine in children, a symptom of some disturbance in the action of the bladder muscles. Generally there is some form of irritation that causes spasm of the detrusor muscle, or there may be a mere weakness of the sphincter. The causes are direct or reflex in their action. The direct causes are: (1) highly acid urine, (2) distention of the bladder with an undue quantity of urine, (3) general muscular debility, (4) persistence of the natural infantile weakness of the sphincter. The reflex and the most frequent causes are due to

disturbances of the digestive or the generative organs. Thus a redundant or adherent prepuce causes nocturnal incontinence. An adherent clitoris or vaginitis may lead to the same result in girls. Masturbation is an occasional factor. If the digestive tract is at fault, the enuresis is caused by the indigestion itself or by its effect on the urine, causing it to become highly acid. Constipation, pinworms and rectal fissures are sometimes causative factors. Other conditions that may occasion nocturnal incontinence include vesical calculi and polypi, urethral diseases, nephritis, spinal paralysis and epilepsy. The treatment should consist in the removal of the cause and the proper medication for the disturbed muscular action. If general debility is the cause, a tonic, good feeding and cold sponging are indicated. Static electricity should be applied over the bladder region and to the lumbar portion of the spine. If spasm of the detrusor muscle exists, give $\frac{1}{4}$ gr. of the extract of belladonna, or 1-100 gr. of atropin at bedtime. He recommends the tincture of lycopodium in doses of 15 to 30 min. 4 times a day. In addition to the medical treatment, one may resort to dilatation of the urethra by the passage of sounds. For the elongated prepuce, circumcision is necessary. Vaginitis requires gentle irrigations with boric acid solution. The child should receive proper food, and become accustomed to regularity in his habits. The supper should be light, and no fluid taken for at least one hour before bedtime. Constipation should be corrected, either by dietetic changes, cathartics or enemata. Pinworms may be destroyed by injections of infusion of quassia. A rectal fissure may be healed by applications of a 1% solution of silver nitrate. The general care of the patient must not be overlooked; his clothing should be warm, his feet kept dry, and exercise regulated. He should go to bed early and be taken up to urinate at ten or eleven o'clock. Finally, constitutional conditions must receive treatment.

The Surgical Treatment of Puerperal Infection.

Boldt (American Journal of Obstetrics.) "There are instances of peurperal infection in which hysterectomy is indicated, namely, such patients who have decomposing placental structure in the uterus that cannot be removed through the natural channel. Such instances are extremely rare. The author has not had an opportunity of seeing even one among the large number of such patients under such observation. The operation is also indicated by the presence of suppurating and sloughing myofibromata. It is further indicated in instances of septic metrophlebitis, if it be possible for one to make the diagnosis of this condition and with the proviso that the general condition still justifies the operation.

Whether the hysterectomy should be done by the abdominal or by the vaginal route must be determined by the local conditions and with the consideration of the general condition of the patient. If it be possible to remove the organ with one serious mutilation per vagina that method should be the one of choice. If, however, such is not feasible when the organ is too large and the vaginal canal too narrow so that it is evident that the softened uterus would be subjected to so much traumatism as to contaminate the pelvic peritoneum and the fresh wounds with the septic interior, the abdominal route should be chosen. Furthermore, if the process be such that it is intended to probably remove the broad ligaments and some infected blood-vessels, the abdominal route must necessarily be that of choice.

That it is possible to remove infected veins with a successful result in puerperal pyemia has been provid by Trendelenberg. A puerperal uterus with a sloughing myoma should always be removed from above conclusions.

In the acute forms of puerperal septicæmia and pyemia in which it is probable that the general circulation has been invaded by micro-organisms, whether a bacteriological examination of the blood at the time of making the examination proves this or not, no method of surgical intervention is of benefit. On the contrary, it is likely to shorten life.

In all puerperal infections the form of surgical intervention, if one be indicated, must be left to the judgment of the physician.

Medicinal Treatment of Gall-Stones.

Richardson (Therapeutic Gazette) states that gall-stones appear to be the result of an infection, producing an inflammation of the walls of the gall-bladder and an reduction in the total solids of the bile, especially of the bile acids, with an increase of cholesterine. Similar results have been produced by injecting mercurie chloride into the gall-bladder of starving dogs, showing that bacterial infection is not necessary to produce a condition of bile favorable to the formation of gall-stones.

Analyses of bile from fistulæ seem to prove conclusively that cholesterine gall-stones are the result of a deficiency of glycocollic acid. "It naturally suggests itself that the prophylaxis of gall-stones is the administration of glycocholate of soda by the mouth since it will then be absorbed

from the intestine, entering the gall-bladder from the liver, and hold the cholesterine in solution." The possibility of dissolving gall-stones already formed has also been considered. Harley and Barratt inserted large gall-stones into the gall-bladders of healthy dogs and found that in periods of from six months to one year they had entirely disappeared. In other cases in which they produced a cholecystitis the gall-stones remained unaltered.

From these experiments it is evident that by the administration of glycocholate of soda it must be possible to dissolve gall-stones in the bladder, and even when cholecystitis is present glycocholate of soda is indicated not only as a prophylactic but as a solvent for stones already present, and that in those cases only in which there is occlusion of the gall-duct is surgical interference permissible.

Acute Flexion of the Gall Bladder as a Cause of Biliary Colic--Its Relief by Operation.

Cabot (Boston Medical and Surgical Journal) speaks of the difficulty of ascertaining just what the cause of the colic is at the time of operation, since operation is usually done in the period of quiescence, and therefore the mechanical obstruction or drag is not always apparent.

In the first case, reported the pressure of the ribs carried the funds of the gall bladder downward and inward, causing a distinct kink at its middle. When the fundus was drawn outward this disappeared. On opening the gall bladder, nothing was found within to account for the colic. The fundus was then drawn outward and attached to the parietal peritoneum, a drainage tube being inserted. The patient recovered with practically complete relief of symptoms.

In the second case he states that the gall bladder was long and lax, and projected beyond the edge of the liver. It was attached to that organ up to its edge, and made a distinct sulcus by its weight and downward pull in the lower hepatic border. The pressure of the rigid abdominal wall upon the gall bladder caused a sharp bend at this point, and seemed to be the cause of the pain. The gall bladder was removed with complete relief of pain. He thinks that complete removal of the gall bladder is the best operation in cases of this character.

Diagnostic Value of the Roentgen Rays.

Leonard's (Medical News, Jan. 9, 1904) conclusions are based upon the study of three hundred cases that have been referred for examination and diagnosis. The advantages demonstrated are a greater accuracy than other methods of diagnosis. An equal accuracy in the positive and negative diagnoses. A freedom from all the dangers and inconveniences common to exploratory operations, vesical examinations and ureteral catheterizations. The possibility of an early accurate diagnosis as soon as the suspicion suggests the possible presence of a calculus. A greater comprehensiveness definitely excluding or locating all calculi; giving their size, location and number, whether one or both kidneys and ureters are involved. This greater detail in diagnosis localizes and limits the operative intervention. It renders incision into the kidney unnecessary, except for microscopic lesions; and has given rise to a conservative expectant line of treatment, that is rational, because it guards the integrity of the kidney.

An analysis of the three hundred cases that have been examined shows that calculi have been found in 86 cases, or over 28 per cent. That in 46 of these cases, or over 50 per cent, the calculi were in the ureter. That in nineteen of these cases of ureteral calculus the patients passed the calculi after expectant treatment had been suggested as the result of the Roentgen examination. The positive diagnosis has been confirmed by operation in all cases operated upon except five.

Congenital Dislocation of the Hip.

Tubby (Clinical Journal) says that the affection was seven times as common in females as in males, the affection being unilateral or bilateral in about equal proportions. The deformity is occasionally hereditary, and transmitted chiefly through the female line. The affection is always associated with changes in the acetabulum but not, in the development state, with alterations in the head of the femur. The latter is probably normal at birth. Most frequently the acetabulum assumes the form of an isosceles triangle with its base upwards and forwards; in debth it is usually shallow, and scarcely large enough to admit the tip of the index finger. Sometimes it is entirely absent, and sometimes its place is occupied by a convex mass of bone. Frequently the postero-superior border is deficent.

After birth the head of the femur loses its circular outline, and becomes flattened on one aspect. Thus, if the dislocation be dorsal the anterior aspect is flattened, and if the dislocation be anterior the reverse occurs. It also becomes oval in shape from above downwards, and sometimes irregular. In adult life it is frequently mushroom-like and in old age it may disappear entirely. The neck of the femur undergoes version in such a way as to become convex, anteriorly

or posteriorly. The capsular ligament of the joint is in most cases enlarged. As regards the muscle, those which pass from the pelvis to the great trochanter, *i. e.*, the abductors and external rotators, are lengthened, whilst the adductors are shortened.

The displacement is usually superior and posterior, but a good many cases are seen where the displacement is anterior.

Symptoms and diagnosis.—The gait is waddling, but when the patient is running this is not so marked. Much lordosis is present on account of the disturbance of the body equilibrium. On placing the patient on his back the lordosis dissappears, and the distance between the tops of the trochanters and the crests of the ilium becomes less. In all cases, however, the trochanter is above Nélation's line, and there is shortening of the limb, much of which may be made to disappear by steady traction. The negative signs are as follows: Total absence of pain; no limitation of movement in young children and little limitation in adolescence.

The chief conditions for which the affection may be mistaken are coxa vara, pseudohypertrophic paralysis, advanced hip disease and paralytic dislocation, but the diagnosis can usually be made, if attention is paid to the history, symptoms and signs.

Treatment.—Up to the age of four years the author divides, either subcutaneously or by the open method, the contracted adductors, sartorius and tensor vaginæ femoris; then, exercising traction on the limb and standing well over the patient, the thigh is fully flexed and vigorously abducted. Plaster of Paris is applied and the limb immobilised for six months to a year, and and then an apparatus is fitted which allows the patient to go about with the limb abducted at an angle of 45 deg. to 60 deg. But is doubtful if it is safe for these patients to go about without some form of retentive appliance for three or four years afterwards. In double congenital dislocation it is advisable to operate on one leg at a time; and when the joint has been rendered stable and firm the second limb is treated.

Recent Literature on Diphtheria.

C. B. Ker (Practitioner, Oct. 1903) holds that the diagnosis can be made clinically with a probability which amounts to almost certainty and at least with sufficient accuracy to determine whether antitoxine is indicated or not. The writer does not appear to believe in a simple catarrhal diphtheria and when no membrane is present the question of diphtheria may be dropped. The relationship of true diphtheria to follicular tonsilitis is an interesting point and Marfan believes that certain true cases, especially when the larynx is involved first, do present the appearance of tonsilitis. In his wards 80 per cent. of the cases of follicular tonsilitis accompanied by laryngitis were diphtheritic, whereas under one-half per cent. of follicular cases with no laryngeal symptoms were found to be diphtheritic. Some of the causes of death are carefully studied by Babier and he urges the importance of cardiac thrombosis and tuberculosis. In 69 autopsies he found antemortem thrombi present in the heart in 37 or 52 per cent. In 19 cases in which bacteriological examinations were made the diphtheria bacillus was found in the clots in 18 instances. The patients usually die suddenly during convalescence. He also believes from numerous autopsy findings that diphtheria lights up old tuberculous processes. Perhaps the most useful contribution upon the subject of treatment is the suggestion by Cairns who has used the antitoxine by intravenous injection in the severe laryngeal and nasal forms. He recommends large doses, 20,000 to 30,000 units, in order that the large doses of toxine which have evidently overcome the system may be neutralized. If given subcutaneously the lymphatic glands seem to prevent the serum being absorbed rapidly enough to prove successful. The cases of broncho-pneumonia complicating diphtheria are now recognized as being usually due to the Klebs-Loffler bacillus and the rapid absorption of toxin in these cases also can perhaps best be withstood by large intravenous injections.

Surgery of the Ileocecal Valve.

N. Stone Scott (Am. Jour. of Obstet.,) believes that it would be most natural to suspect the other one of the three, the ileocecal valve of similar tendencies. Again the pyloric end of the stomach is rich with glandular structures, and it is in this part of the stomach that we find gastric ulcers with the resulting cicatricial contractions and stenoses. So of all parts of the intestine there are more glands at the ileocecal valve. Both in typhoid and tuberculosis there are to be found more ulcerations than elsewhere. The medical history of the subject is remarkable for its silence. Legg reports but six cases of non-malignant stenosis of this portion of the intestinal tract. Schroder showed two cases at autopsy and Sayo reports but two others. The symptoms and signs of a contracted ileocecal valve are quite obscure, there being no pathognomonic symptoms, but merely a combination of those noted for appendicitis and obstruction of the intestine proper. A chronic ileocecal obstruction will more likely be mistaken for a chronic appendicitis than for chronic obstruction. The follow-

ing are a few of the more important signs and symptoms: Periodical pains at McBurney's point, with thickening of the tissues, sometimes to such an extent as to form a good-sized tumor. Tenderness of the same point sometimes accompanied with rigidity of the abdominal muscles. Pain in the stomach, acid or gaseous eructions, and other dyspeptic symptoms. Disturbances of the bowels, usually constipation, or diarrhea, followed by constipation. Evidences of distention of the lower end of the ileum, the presence of which is best evidenced by the hard tumor in the iliac fossa, which comes and goes, usually accompanied by colic-like pains, sometimes disappearing with gurgling sounds. Not all these symptoms are present in every case; in fact, the large majority of them may be absent, thus leading to greater obscurity. The etiology of the cases is usually either hyperplastic valvitis or ulceration, the result of typhoid or other disease. Since the ileocecal contraction sometimes appears coincident with the more common chronic appendicitis, and especially as many of the symptoms are identical, it is right that the surgeon should examine the valve while operating for appendicitis. Non-malignant obstruction of the ileocecal valve, though not more prevalent than heretofore, will be far more frequently recognized, and therefore rectified, in the future than in the past.

Hemorrhages in Jaundiced Patients.

Berg (Annals of Surgery) states that the persistent and uncontrollable capillary hemorrhage so often occurring in operations on deeply jaundiced subjects is especially apt to follow when the cause of the jaundice lies in the malignant obstruction of the bile-ducts. During the past year two of the author's patients have succumbed from bleeding, in spite of a systematic administration of calcium chloride in both small and large doses, given at least five days before the operation. In the author's opinion the cause of this serious oozing lies not so much in the retarded coagulation as in a fatty degeneration of the walls of the arterioles, interfering with their retraction and contraction. It is hardly possible, it is held, that a retardation in the coagulation of the blood should be responsible for the persistent bleeding that occurs in these cases. Were this alone the cause, the rapid induction of coagulation by cautery or styptics would arrest the hemorrhage. On the other hand, it is well known that chronic jaundice causes a marked atrophy of all muscular tissue. Such atrophy of the muscular tissue of the blood-vessels interferes materially with their contracting power. This view, it is stated, is supported by the results of experience. The longer the duration of jaundice the greater the tendency to bleeding. Further, it might be expected that as cancerous cachexia, chronic sepsis, and other debilitating influences give rise to a fatty or waxy degeneration of the tissues, patients suffering from these associated diseases would be more apt to bleed than those who suffer from chronic jaundice alone. This is substantiated by experience.

Treatment of Paroxysms of Whooping Cough.

Naegeli (American Practitioner and News) reports his experiences as follows:

1. Pulling the lower jaw downward and forward controls the paroxysms of whooping-cough in most instances and most of the time.

2. The method is usually more successful in older children than in younger ones and in infants.

3. In cases without a whoop the expiratory spasm, with its asphyxia, is generally overcome, and in those with a whoop the the latter is prevented.

4. As a single therapeutic measure for the control of the paroxysms it deserves a place in the treatment of pertussis, and is as successful as any single drug or even more so.

5. Mothers, nurses, and other attendants should be instructed in its use in order that the oncoming attacks, especially at night, might be arrested.

6. The manipulation is harmless, painless, and easy of application, without any of the ill effects of drugs; it offers a maximum good effect with a minimum derangement.

7. The only contraindication to its application is the presence of food in the mouth or esophagus.

8. The patients treated in this manner are less likely to suffer from complications and sequelæ than those treated only medicinally; they emerge from the disease in far better condition, less exhausted, and less emaciated, because vomiting has been controlled.

9. It is advisable to try the maneuver in other spasmodic coughs and laryngeal spasms (laryngismus stridulus, pressure of enlarged cervical and bronchial glands, influenza, and in glottic spasm in catarrhal laryngitis), although experience would seem to show that it is far less efficacious in these conditions than in whooping-cough.

10 This method, being directed mainly to the control of the glottic spasm, does not preclude the advisability of supporting and sustaining the patient, guarding his gastro-

intestinal tract, establishing equilibrium in the nerve centers, and affording him every possible hygienic advantage.

11. It is particularly indicated in instances complicated with diffuse bronchitis, bronchopneumonia, convulsions, epistaxis, subconjunctival or subcutaneous hemorrhage, or sublingual ulceration, and in those children who by virtue of tender age, the presence of rachitis, scrofula, or general debility are predisposed to serious complications and sequelæ.

A New Treatment for Dysmenorrhea.

Emil Ries (Am. Gyn.) says that every self-respecting text-book of gynecology informs us that dysmenorrhea is not a disease, but a symptom. Nevertheless, the majority of these books proceed immediately thereafter to a discussion of dysmenorrhea in a special chapter apart from the systematic consideration of the pathological changes in the female sexual tract. This unsatisfactory knowledge of the etiology of dysmenorrhea is mirrored in the more unsatisfactory results of the therapeutics of this symptom. The cases of dysmenorrhea that are amenable to successful operative treatment are comparatively few, and belong to a few well-known and well-defined classes with distinct pathological changes. Once diagnosed they yield to proper operation.

A class of cases—pathological anteflexion, pinhead os or stenosed cervix—are operated on frequently with negative result. Medical treatment, if less ruinous to the patient's sexual organs, is only too liable to deviate into the smooth and easy downward path to the opiate, which leads to the perdition of body and soul. The bicycle has probably done more for women with dysmenorrhea than any medical treatment, but unfortunately, it is falling into disuse.

Under these conditions, all progressive men must be willing to investigate every new idea that is offered in the treatment of dysmenorrhea, if it proves, first, harmless, and, secondly, reasonably successful, and if it has a sound basis. He refers to the Fliess treatment of dysmenorrhea. Fleiss, a rhinologist, read a paper before the Berlin Obstetrical Society in 1897, giving a series of experiments which had convinced him that there was a species of dysmenorrhea dependent on changes in the nose, and curable by the treatment of these nasal conditions. He mentions two classes of this condition. In one the pain stops as soon as the menstrual flow begins. This class does not belong to what he calls nasal dysmenorrhea. The cases in which the pain continued after the beginning of the flow presuppose a certain pathological condition of certain spots in the nose, which he termed "genital spots." These spots are on the inferior turbinated bones and the so-called tuberculem septi. At the time of the menses these areas increase in size and sensitiveness, bleed easily, and are more or less cyanotic. In women with nasal dysmenorrhea the pain disappears immediately as soon as these spots are treated with a few drops of a 20-per cent. solution of cocaine. He has experimented with this treatment in four cases, one of which within the last year has been dilated, curetted, and a Sims operation done on the cervix without success. In all four cases the effect of the cocaine was surprising to the doctor as well as to the patients. He advises that series of experiments along this line be conducted in order to determine the modus operandi of the treatment, and suggests the following:

(1) Use the treatment according to Fleiss. In case of positive result use (2) cocaine in the pharynx, (3) cocaine on areas outside the genital areas in the nose, (4) some astringent solution instead of cocaine, (5) plain water at body temperature.

Of course, the patient must be ignorant of what solution is being used. The result of the varied applications will show for how much the element of suggestion counts in the treatment.

The treatment is so exceedingly simple and so easily applied that every practitioner can aid in the determination of the value of this method.

There is the possibility of the patient's getting into the cocaine habit in consequence of the success of this treatment of dysmenorrhea.

Dry Hot Air as a Therapeutic Agent, with Demonstration of the Body Treatment.

Clarence Edward Skinner (Boston Medical and Surgical Journal, 1903) believes dry hot air to be of great value in the treatment of a large number of diseases. The best results are obtained in the treatment of the following conditions: (1) *Rheumatism.* The dry hot air treatment should always be combined with the free administration of the salicylates. If this is done it will be found that rheumatism will yield to treatment as easily as malaria. One should be certain that the diagnosis has been correctly made. Three-fourths of the cases that have come under the author's observation with a diagnosis of rheumatism have not been rheumatism at all. The cures obtained are permanent, though, of course, patients may get new attacks. The chief advantages of the hot air treatment of rheumatism are: the immediate relief of the pain, the shortening of the duration of the disease, the lessening of the liability of cardiac involvement, and the freedom from

vicious after effects. (2) *Sprains.* If treated by hot air within four or five hours after their occurrence, they can be cured in from two to four days, instead of the usual six or eight weeks that is not infrequently needed by any other method. (3) *Arthritis deformans.* A considerable number of cases of this affection can be cured by means of hot air alone. The majority of the victims of this disease can be restored to comfortable and useful lives if, combined with hot air, one uses static electricity and other rational therapeutic measures. The author gives a list of twenty-eight additional diseases in which dry hot air has proved of service. The effect of the hot air treatment on the patient, during the application, is described at length, and attention is called to the changes that occur in the composition of the blood and in the quantity and quality of the various secretions. The method of giving the baths is fully considered and criticisms of the method are answered. There are two methods by which hot air applications may be given: (*a*) by "local treatment"; and (*b*) by "general or body treatment." The author recommends that the apparatus used for local treatment be one which is capable of producing a temperature of at least 400 deg. F. in twenty minutes, and of maintaining it steadily at that point for an indefinite time. The body apparatus should be capable of generating a temperature of at least 350 deg. F. in half an hour, and maintaining it at that point for an indefinite time.

Typhoid Fever in Children.

Adolf Baginsky (Boston Medical and Surgical Journal) gives the diagnostic signs of typhoid fever, the general appearance of the patient, the characteristic remittent fever, gastric disturbance, diarrhœa, condition of the tongue, enlargement of the spleen, roseola, and the diazo-reaction. The differential diagnosis between typhoid fever and miliary tuberculosis is often difficult. In many cases we must wait for the appearance of meningitic symptoms, irregular pulse, vomiting, constipation, and finally general convulsions before we can be sure of the latter condition. Repeated blood examinations will undoubtedly greatly assist in differentiating pneumonia and typhoid fever. In pneumonia there is generally an increase of the leucocytes, while in typhoid fever they exist in diminished numbers. Frequent physical examination will reveal the pneumonic center in the lungs. The prognosis of typhoid fever of children is, as a rule, favorable. The writer has observed eighty-eight cases in the hospital, five of which died, a mortality of 5.6 per cent. In his private practice he has been more successful. The most insignificant and shortest forms of typhoid fever often occur in children, and are but a weak reflex of the typical illness. The prognosis of this disease depends very materially upon the treatment and the period at which it is begun. Moderate antipyretic treatment with a consideration of the complications improves very considerably the prognosis, undoubtedly. Proper diet and careful nourishment decide the prognosis in many cases. Pneumonia, parotitis, or other infectious disease, or even noma, as a complication seriously affect the prognosis. Even in the light epidemics of typhoid fever the strictest prophylaxis must be exercised. Children should be protected from the use of infected water and food, particularly milk. Everything coming in contact with the patient should be disinfected. The antipyretic method of treatment has the same importance for children as for adults. The two great groups of remedies are: (1) The bath and the cold pack. (2) The internal administration of antipyretics. Each case must be dealt with according to its individual needs. Children with typhoid fever cannot stand very cold baths. The younger the child, the more care must be taken in this regard. Children bear the cold pack very well. The permanent lukewarm bath, according to the method of Riers, is apparently to be recommended. Success in the treatment of typhoid fever depends largely upon the proper nursing of the patient. Bouillon, wine, yolk of egg with water and wine, milk, cornstarch preparations, plasmon and somatosa are among the foods that may be given. All solid food is forbidden. The organs of respiration require particular attention. Narcosis must sometimes be resorted to to quiet restlessness. During convalescence it is particularly important to watch carefully the digestive organs.

Difficulties and Dangers of Mastoid Operations.

Syme (Edinburgh Medical Journal) says that no two mastoid operations are alike; and it is the uncertainty as to the actual state of the parts which may be found, which adds a distinct and never negligible risk, so that it behoves the surgeon to be always on his guard and wary of surprises. First, as regards the indication for operating in cases of chronic purulent middle-ear disease. Among the general body of the profession there is a certain fatalism in regard to the treatment of this condition. Syringing with antiseptics may be tried, but often this is of no avail; still the danger of allowing this condition to go untreated, and thus to leave the patient open at any

time to the grave intra-cranial complications (sinus, thrombosis, brain abscess, meningitis, etc.) cannot be too strongly stated. At the same time it is well recognised that what is known as the antiseptic treatment, vigorously and regularly carried out, is sufficient to effect a cure—temporary though it may be. The reason it so frequently fails in private practice is because it is not properly carried out. Moreover, there are certain cases where the disease is confined to the inner wall of the tympanum, and where the antrum and cells are not affected. In such a condition there is nothing to be gained by opening the mastoid.

There are, however, cases where the antiseptic treatment fails, and then the question of operation must be considered.

When does an acute case become a chronic? Though it is true that dangers due to the results of purulent disease and cario-necrotic processes are more liable to be found in chronic conditions, still destructions of bone may occur in an acute one. In operating, difficulty may present itself at the beginning, at the incision through the soft parts. These may be naturally thick or increased by œdema, and the bone reached only at a considerable depth. In such cases it is well to make as long an incision as possible, so as to more easily expose the region of the antrum and mastoid cells. Bleeding may be troublesome, and in the initial incision there may be damage to the membranous meatus. As regards the bone difficulties, some of these are due to the natural conformation of the parts, while some may arise as the result of the changes which have been caused by disease. The position of the antrum is of grave importance, and though it may be stated that the facial nerve is the bugbear of mastoid operations for chronic disease, it will not be denied that the lateral sinus, or rather the sigmoid sinus, is the structure which adds the greatest risk. In addition to the variability of its site anatomically, there is the great uncertainty as to the changes in the sinus as the result of disease. Hæmorrhage may be alarming, but may be controlled by plugging; but a graver danger is the entry of septic material into the circulation. Of little less importance than the sinus as an element of danger is the dura mater. Even when the bone beneath the middle fossa is healthy, the dura may be pierced in the chiselling process, and this danger is increased when the superior wall of the antrum is eroded by disease. To avoid this mishap, the bone should be removed in thin layers parallel to the surface of the dura mater. It is not always possible to avoid wounding the facial nerve, as the wall of the fallopian canal may be absent, either as a developmental defect, or as the result of caries or necrosis; and in such, injury may readily be inflicted during the operation, or paralysis may result from an inflammation of the sheath. By the use of Stacke's protector, and by having the face carefully watched for the first sign of twitching while working in proximity to the nerve, the danger is minimised. Among other structures in this region which may be injured are the horizontal semicircular canal and the stapes in the fenesta ovalis. Accident to these in the course of the operation may lead to destructive processes in the internal ear, and even to the extension of the disease through the internal auditory canal to the cranial fossa. In concluding, it is well to remember the directions in which danger lies—posteriorly, the sinus; superiorly, the dura; deeply, beneath the external attic wall the facial nerve.

Hernia Following Abdominal Operations; Its Prevention and Cure.

Smith (Medical Press and Circular) says:

1. Hernia is a frequent complication following abdominal section.

2. When it occurs, it prevents other women from undergoing laparotomy.

3. It is quite preventable: (*a*) By leaving in the stitches for one month if the woman is thin enough to allow us to use through-and-through sutures; or (*b*) by using non-absorbable buried ligatures when the woman is fat enough to require two layers of sutures. The writer prepares his silkworm gut by placing it in sealed glass tubes and boiling it. A cut with a file is made in the middle, and just when it is required for use the tube is snapped across. (*c*) By discarding the abdominal drainage tube and when drainage is necessary, which it rarely is, draining through the vagina. (*d*) By securing accurate coaptation of the cut edges by marking the places where the stitches are to go before the incision is made. (*e*) By taking care that no peritoneum is curved up so as to come between the muscle and fascia of opposite sides.

4. Hernia is easily cured in small cases with a single buried silkworm-gut, purse-string suture, and in larger cases by splitting the edges of the ring until the recti muscles are exposed from top to bottom, and suturing them with buried silkworm gut.

5. Patients with buried silkworm-gut stiches do not need to stay in bed more than two weeks, and in some cases less; and they do not need to wear an abdominal belt.

6. Patients with through-and-through silkworm-gut stitches left in for a month can, in case of necessity, go home in twelve or fifteen days, and return at the end of

four weeks to have their stitches removed. They do not need to wear a support until the stitches are removed, and even then it is not necessary.

Pregnancy During Lactation.

H. M. Church (Edinburgh Medical Journal) calls attention to the danger of allowing these two conditions to overlap. In the first place he believes that it is much more infrequent than ordinarly supposed, about 30 in 1,000 cases, which came under his own observation. He states that from his own experience the suckling was or became a delicate child, and usually at some time suffered from some affection of the nervous system, or was the mentally weak one of the family. During lactation the embryo was apt to be prematurely expelled from the uterus, or if it did reach full term, in many cases it did so with lowered vitality. In addition, the health of the mother was generally undermined for a longer or shorter time. Whenever a diagnosis of pregnancy is made during lactation, the nursing child should be weaned at once. Ten cases are detailed which support the author's contention. The breast milk is shown to be changed during menstruation, and a greater change occurs from a new pregnancy.

Intestinal Perforation in Typhoid Fever.

Harte and Ashhurst (Annals of Surgery, January, 1904) believe that to trust to medical treatment alone in this condition is nothing short of folly, and that in case of doubt an exploratory laparotomy is indicated. They find the best incision is one through the outer half of the right rectus muscle, the majority of the perforations occurring near the cecum. The ulcer is preferably closed by a row of mattress sutures placed parallel to the long axis of the gut, reinforced by a row of Lembert sutures. The peritoneal cavity should be flushed by large quantities of hot (110 deg. F.) saline solution and the cavity drained, gauze being more satisfactory for this purpose than tubing. Food by the mouth is to be avoided as long as possible after operation, nutritive enemata being given every two or three hours. Speed during the operation is a matter of great importance.

Starch Digestion in Infancy.

H. L. K. Shaw (Albany Med. Annals, Jan., 1904) states that thirty-five infants were given barley water on various occasions, instead of their regular feeding. One hundred of such barley meals were removed from fifteen minutes to two hours after the feeding. The stomach was washed out before the feeding in about one-third of the cases. The stomach contents tested with Lugol's solution showed that free starch was present in 2 per cent., erythrodextrin in 41 per cent., and achroodextrin or maltose in 57 per cent. of the tests. In the first two instances the babies were sick, and in the same infants starch conversion was found at other times. In order to determine whether the stomach contents contained any diastatric ferments, the latter were removed after a regular or barley water feeding, and added in varying amounts to a one-half per cent. solution of laundry starch. After being in the thermostat for an hour, the addition of Lugol's solution did not show the starch reaction in a single instance. The stomach contents removed two hours after feeding showed diastatic power. Tests to determine the diastatic powers of the saliva also showed that a partial conversion had taken place, and that both free and converted starch were present in the same test tube. It appears, therefore, that the salvia of very young infants contains a distatic enzyme capable of converting small amounts of starch into maltose; that the diastatic action of the salvia may continue in the stomach as long as two hours after feeding, and that on physiological grounds there is no reason why young infants cannot digest small amounts of starch.

The Serum Treatment of Typhoid Fever.

Einhorn (Medical Record, January 16, 1904) discusses the work of Chantemesse and others in this field, and reports his own observations in a series of ten cases. The writer used the serum of Jez and Tavel, made by the Berne Board of Health, an organic extract from the spleen, marrow, brain, spinal cord and thymus of rabbits which had been immunized against typhoid fever. The injection plan of treatment was used, and the medium, severe and grave cases were those selected. The results were, as a whole, considering the small quantity of the serum used, encouraging, though Einhorn admits that the duration of the disease does not seem to have been materially shortened; however, in one case termination occurred by crisis on the twenty-fourth day. As a rule, marked reduction of fever followed the first or second injection, a reduction one or two degrees below any previous remissions and lasting longer. The symptoms on the part of the nervous system particularly sleeplessness, headache, restlessness and delirium, were usually greatly improved, often disappearing entirely. It must also be taken into consideration that the serum treatment was begun rather late in the disease, from the ninth to the fifteenth day. On the other

hand, the number of cases was too small to allow of any far-reaching conclusions. However, the injections were not attended with any dangerous or untoward symptoms, and the author believes that with a more potent serum we will be able perhaps to attain more striking results.

Intraperitoneal Haemorrhage Incident to Ectopic Gestation.

Cullingworth in The London Lancet says that intraperitoneal hæmorrhage, incident to ectopic gestation, may be diffuse or encysted, depending on the extent of the hæmorrhage and the rapidity with which the blood is poured out. The signs and symptoms of the diffuse form consists of those of an acute and sudden abdominal lesion, plus those of severe internal or concealed hæmorrhage. Whenever these are present in a female patient during the child-bearing age, the probability of their being due to a disturbed ectopic gestation should always be borne in mind. The first symptom is a sudden and severe pain in the abdomen, often accompanied by vomiting. The patient feels faint, but is quite conscious and remains so. The abdomen is more or less distended and rigid and becomes excessively tender. Along with the usual signs of collapse the surface of the body becomes very pale, and the pulse increases in frequency and becomes weaker and more compressible until finally it is imperceptible. The patient becomes more faint, her pain abates, she grows restless, yawns, and if left untreated gradually sinks, her mind being clear until the last. The principal points on which a diagnosis should be based are: (1) That the patient was in her usual health at the time of the attack; (2) the gradually increasing pallor and the gradually rising pulse, without a corresponding elevation of temperature; and (3) the extreme tenderness of the abdomen. The evidence on physical examination of free fluid in the abdominal cavity is usually not forthcoming. On vaginal examinations there may be found a full and boggy condition of Douglas's pouch, and there is often a slight hæmorrhage from the vagina.

The encysted or non-diffuse form of intraperitoneal hæmorrhage (pelvic hæmatocele) is ordinarily characterized by irregular uterine hæmorrhage and by attacks of abdominal pain, more or less severe, and often accompanied by vomiting, followed by the development of a distinctly circumscribed swelling, which may either be limited to the region of the uterine appendages on the affected side, or may more or less fully occupy the whole of the posterior part of the cavity of the pelvis. The irregular hæmorrhages and the pain are almost equally constant symptoms. The discharge is usually dark, moderate in amount, thick in consistence, and steady in its rate of flow The appearance of decidua in the vaginal discharge helps to confirm the diagnosis. The pain is usually sudden in its onset and at first very severe. It soon abates, and may pass off altogether for the time. Faintness, nausea and vomiting, rise of temperature and retention of urine are among the less constant symptoms. These cases are often mistaken for appendicular inflammation, owing to the vomiting and the rise of temperature. The conditions from which pelvic hæmatocele requires to be distinguished, and for which it is most frequently mistaken, are retroversion of the gravid uterus, ordinary abortion, inflammation of the uterine appendages, with or without a new growth, and an unsuspected ovarian cyst with sudden twisting of the pedicle. The ordinary result of tubal rupture is a diffuse and highly dangerous intraperitoneal hæmorrhage, while the ordinary result of bleeding from the mouth of the tube is the formation of a hæmatocele. Hæmorrhage into the ovum often produces rupture of the tube, because of the sudden increase in size of the ovum. In other cases it causes a trickling of blood from the end of the fallopian tube, exactly fulfilling the conditions necessary to the formation of a hæmatocele. Only in exceptional cases does the blood flow fast and furiously, causieg a diffuse hæmorrhage.

The Clinical Relations of Stomach Disorders to Diabetes.

Sawyer (Cleveland Medical Journal, January, 1904) mentions the relation of gastric disorders to diabetes. Many writers have called attention to the presence of disorders of digestion in the course of or even preceding diabetes. Motor insufficiency was most frequently found; hyperchlorhydria commonly; hypoacidity rarely.

He details a number of cases of diabetes which were markedly relieved by lavage of the stomach with alkaline fluids. Lavage has an immediate and striking effect upon the thirst and hunger of diabetics. In his cases the excretion of sugar became less and less as the gastric symptoms were more and more relieved, and in some of his cases the diabetes seems to have been permanently cured.

The diet in the treatment of diabetes should not be selected merely on a basis of its chemical composition. Its adaptation to the condition of the gastric mucosa is a very important item. The commonly accepted opinion that the digestive disorders are

secondary to the diabetes may have to be modified. The benefit derived from alkaline waters may be explained by the hypothesis that rendering the gastric secretion less acid tends to give physiological rest to the over-excited pancreatic tissue. Leaving theory aside, the clinical results obtained by the author are sufficiently interesting to warrant further study.

Observations on Diabetic Coma.

Douglas (British Medical Journal, December 26, 1903) believes the coma of diabetes as an acid intoxication of the blood due to the formation of excessive quantities of such acids as B-oxybutyric and diacetic. The former is the more important. Since these acids cannot be excreted unless combined with a base, they seize upon the potash and soda in the blood and reduce the alkalescence. The tissues protect themselves by giving up ammonia, derived from their katabolism, which neutralizes the acid and restores the alkalescence. Hence these acids are found in the urine in combination with ammonia—in fact, the estimation of ammonia gives a fairly accurate measurement of the oxybutyric acid which it contains. If for any reason, such as gastric disturbances or impaired nutrition, the ammonia supply is cut off, the blood becomes relatively more acid and coma supervenes. There is considerable experimental and clinical evidence to give credence to the theory, and on it is based a rational line of treatment. Sodium bicarbonate, either by mouth, or, better, by subcutaneous or intravenous injection, has proven beneficial in many instances.

Congenital Dislocation of the Hip.

Burghard (British Medical Journal, Aug. 29, 1903), mentions the anatomical changes met with and discusses the methods at present in vogue. The following conclusions are drawn from these considerations:

1. That all cases should be checked by radiography, and that no "cure" should be spoken of that is not a true and anatomical one.

2. That all cases of congenital dislocation under fourteen years of age should be submitted to treatment. In the great majority improvement will result, while in some a true anatomical cure is brought about.

3. That in all these cases Lorenz's manipulations should be tried in the first instance. Even should they fail to effect reduction they facilitate any subsequent procedures.

4. That the prospect of a cure by Lorenz's "bloodless method" is in direct proportion to the youth of the child, and that after four years there is little hope of a true cure by its means.

5. That in any case the chances of a true cure by the "bloodless method" are not very great.

6. That an operation should be done whenever a radiograph shows that the "bloodless method" has failed to reduce the dislocation, except perhaps in the case of a very young child—under three years—in whom the manipulations may be repeated.

7. That with the open operation no fear need be entertained of shock, bleeding, or sepsis.

8. That under no circumstances should the joint surfaces be remodelled.

9. That an open operation is more calculated to result in a cure, as it enables the surgeon to ascertain beyond a doubt when the head of the bone is really in the acetebulum.

10. That the open operation is especially suited for cases over four years of age and for those of bilateral dislocation.

11. That after the operation the limb should be put up in the position of maximum stability; in the majority of cases this will be similar to Lorenz's position. The limb should be put up in plaster of Paris immediately and the casing should take in the flexed knee; this is essential in order to insure stability of the head of the bone.

12. That all tense structures should be stretched or tenotomized as a preliminary measure a week or so previously to the open operation. The after-treatment is practically identical with that of the Lorenz method.

Chronic Interstitial Nephritis.

Jas. E. H. Sawyer (The Birmingham Medical Review, August, 1903), has collected from many different sources, all those cases which seem to be true examples of the disorder.

Under etiology the wrirer gives a table showing the rarity of chronic interstitial nephritis under the age of twenty. Of twenty-four cases, observed by the author, 10 were males and 14 females. The author is of the opinion that the contracted granular kidney is the result of a primary growth of proliferation of the intertubular connective tissue. Sawyer goes on to discuss the part played by heredity, specific fevers, urinary obstruction as ascending nephritis and syphilis, in the causation of this condition, and comes to these conclusions:

1. That the chronic interstitial nephritis of children is more frequent in males than in females.

2. That the changes in the kidneys are not a further stage of parenchymatous ne-

phritis, but are the results of a primary inflammation of the interstitial tissue of the organs.

3. That the disease is rarely caused by scarlet fever or any of the specific fevers.

4. That the disease may be congenital in origin.

5. That it may owe its origin to congenital and inherited peculiarities of constitution.

6. That the disease may be due to an "ascending nephritis," starting in the pelvis of the kidney. The dilatation of the ureters and of the pelves of the kidney may, however, be secondary to the interstitial change.

7. That syphilis, either hereditary or acquired, may be the chief factor in the causation of the chronic interstitial nephritis of childhood, and may play a greater part in the etiology of the disease in adults than is usually attributed to it.

Section II. covers morbid anatomy—the kidneys, heart, arterial system, brain, etc., which description is very similar to that of the disease as it is found amongst adults, differing only in some minor points.

Filariasis Cured by Removal of the Adult Worms by Operation.

A. Primrose (Brit. Med. Jour.) says that the embryo filariæ were first discovered in 1863. Bancroft found an adult worm in an abscess in a lymphatic gland of the arm in 1876. As early as 1877, Manson suspected the mosquito as playing the part of the intermediary host. In 1879 he demonstrated the life history of the parasite in the body of the mosquito. From further investigation it appears reasonably certain that the infection is communicated to man by the bite of the mosquito. On the west coast of Africa, as many as 50 per cent. of the inhabitants are infected, but curiously enough it is rare to find these individuals ill. Nevertheless, occasionally the adult worms block the lymphatics. The embryo, too, may be responsible for these conditions, but under usual conditions they circulate freely in the blood and cause no disturbance of function. If, however, the parent worm be injured immature ova may be discharged in large quantities into the blood. They do not circulate as freely as the matured ova. They block the circulation and give rise to characteristic lesions. The case operated upon had the following history: It was that of a man forty-seven years of age, who had lived in Barbadoes all his life. In 1881, he was operated upon for what was thought to be hydrocele. Both sides of the scrotum were tapped and iodine injected. This apparently cured the conditions. In 1884 he suddenly became seriously ill with fever and swelling of the leg. Two years later he had a similar attack. These attacks continued until the present date, but the period between them became progressively shorter. He had been infected for about twenty years. The scrotum was about three times the normal size, the amount of thickening being marked and permanent. The blood showed the characteristic signs of filariasis, one cover-slip alone showing 20 embryos. The specimens were withdrawn at night. The greater part of the indurated scrotum was removed, two lateral flaps of scrotal tissue being left. No ligatures were required. The wound healed without trouble. One parent worm, which looked like a piece of animated white thread about 6 cm. long was removed from the tissue. In salt solution it remained alive some hours. Forty-six days after operation the patient developed elephantoid fever. A swelling developed in the neck which was incised and drained. Subsequent examination of the blood showed it to be absolutely free from infection six and a half months after operation.

Treatment of Hernia in Young Children.

McAdam Eccles (The Hospital, London) remarks that, while there is often a congenital condition predisposing to hernia, it is nearly always requisite that there should be an acquired factor. In most cases these two causes are a processus vaginalis and increased abdominal pressure, the outcome of intestinal distension. Hence the rational treatment must be the removal of both causes. Proper dieting will often prevent distension by intestinal gas. There is a tendency for the processus vaginalis to close if it is not kept patent by the descent of viscera. This can often be prevented by the use of a truss for three years. Failing this, an operation is required.

Unless the hernia is strangulated, it is best to wait till the early stages of first dentition are passed. Any hernia which contains irreducible contents calls for operation. Umbilical herniæ which have not disappeared before the age of three are suitable for operation. An undescended testicle with patent processus vaginalis is also an indication for operation.

With regard to the operation, care is required to prevent contamination with urine and fæces. The author prefers biniodide of mercury for cleansing the skin. The bowels should be opened by a mild aperient the morning before the operation, and no enema should be given.

In the case of umbilical hernia, an incision should be made laterally half round the umbilicus and the flap raised with the scar of the navel. The protruding peritoneum

should be cut away and the edges united with silk sutures. The edges of the two recti muscles are then incised and the muscles united with silk sutures. After this the skin is united with silk or silkworm gut.

For inguinal herniæ an incision is made well away from the scrotum and parallel to Poupart's ligament. The external oblique muscle is incised and the canal exposed. The ilio inguinal nerve in front of the sac should be avoided. The neck of the sac is then carefully dissected free from the cord. The bladder, which may lie close to the inner side, must be avoided. The sac being opened is transfixed and tied with silk. The neck of the sac is cut below the ligature and the rest of the sac left undisturbed. The external oblique is sutured and then the skin. No truss is required after the operation. When carried out aseptically, a permanent cure is the result.

Extra-uterine Malignant Deciduomata.

O. Busse (Virchow's Archives) describes two cases. The first patient was seized two weeks before death with severe headache, gastric symptoms, lassitude and cardiac pain and coma; involuntary discharge of urine and feces and paresis soon followed and one-half of the body became anesthetic and the seat of peculiar vasomotor disturbances. This vague symptom-complex was only cleared up at autopsy when it was found that both small and large vessels of the brain were completely occluded by emboli of varying date which had caused extensive softening of cerebral tissue. The cause of the emboli was a large tumor situated in the left ventricle of the heart which was made up of elements found only in malignant deciduoma. While most other organs were also riddled with metastases, the uterus was entirely free from pathological lesions so that the cardiac tumor must be looked upon as primary. The case is difficult of explanation, but since there was a history of pregnancy five months before the onset of the illness, it is possible that portions of the placenta were torn off and carried to the heart where they were arrested by the slowing of the blood-current due to a beginning syphilitic myocarditis. In the second patient the malignant deciduoma had developed in the right parametrium and posterior wall of the vagina; the uterus was also free. At present, only sixteen cases of extra-uterine deciduoma are reported in literature; in most the primary tumor was seated in the vagina and metastases had formed in the lungs and brain. The mucous membrane of the uterus frequently swells like in extra-uterine pregnancy, but it is difficult to say if this depends upon chemical or reflex influences. The writer does not share the common belief that metastases may disappear after extirpation of the primary tumor.

Diseases Cured by Stem Pessaries.

J. H. Carsens (Am. Jour. of Obstet., Nov., 1903) says that there is still a field of usefulness that this instrument can enter with safety. In cases of infantile uteri it has proven to be of use in the stimulation of this organ to greater development. He says the uterus is stimulated and congestion produced and also that the nutrition of the whole pelvis is thereby benefited. The muscles of the uterus are exercised just as those in any part of the body are by the constant effort of the uterus to expel the pessary. Thus the uterus is enlarged and at the same time, it is straightened and the menstrual flow is permitted to pass out unobstructed from the body of the uterus. The greatest trouble is to keep the passary in the uterus. And for this the author advises the use of the Chapman pessary, made of hard rubber, which can be easily sterilized by boiling. The author takes his patient to the hospital and prepares her as for any other operation. The pessary is introduced, and the patient is kept in bed for one or two days. He allows her to get up and walk around, in three or four days she can leave the hospital and attend to her usual vocation. No after-treatment is necessary, not even hot douches. The writer recommends this plan of treatment in the following kinds of cases: (1) Infantile and poorly developed uteri; (2) amenorrhea; (3) scant or irregular menstruation, as is found in fleshy women; (4) simple cases of retroversion, as is found in young girls; (5) cases of stenosis or tortuous uterine canal; (6) the stem must be worn at least six months. A year or even two years is better. If at any time irritation is produced, the pessary can easily be removed.

Pulmonary Oedema.

Owen (British Medical Journal, Jan. 2, 1904) believes that œdema of the lungs often plays a most important part in the close of many fatal diseases. In disease of the heart valves death rarely occurs from stoppage of the heart itself; the commonest danger is the extension of the general

dropsy to the lungs. In fatal acute croupous pneumonia, the unconsolidated portions of the lung are largely the seat of a morbid condition as detrimental to their utility as inflammation. They are distended and filled with a clear albuminous fluid—they are, in a word, affected by a severe œdematous process, which in many cases is the actual cause of death. Œdema of cardiac origin usually begins at the bases of the lungs, but in pneumonic œdema the first signs are often to be detected in the scapular regions. The author holds that such œdema in pneumonia is often the cause of death erroneously ascribed to heart failure. Pulmonary œdema is also a frequent cause of death in bronchitis. The most important and significant physical sign of œdema of the lungs is the presence of clear, fine, fluid, crackling rales of uniform size. As the process extends the rales are heard over a larger area, the percussion note becomes impaired, and if the lungs become entirely waterlogged, dullness may be complete and the breath sounds abolished. But the voice sounds and vocal fremitus persists, thus differentiating between œdema and pleural effusion. A careful investigation of the right side of the heart is an important preliminary to the treatment of œdema of the lungs. The signs of dilatation of the right ventricle and evidences of obstructed venous circulation are to be sought. If these signs are present and the conditions are urgent, venesection should be resorted to at once. The removal of from six to ten ounces of blood will usually be sufficient, and the relief afforded is often very marked. Failing venesection other less efficacious methods of lessening venous pressure may be resorted to—the use of leeches, or of free watery purgation by means of elaterium or jalap. Diuretics are useless, hot air baths are not always applicable, and pilocarpine, while an efficient sudorific, is contraindicated by the probable state of the heart. Bleeding should usually be followed by the administration of digitalis or strophanthus. Single doses of alcohol are often of temporary service, but its continuous employment in œdema of the lungs is useless, if not actually harmful. Oxygen is always of service. But the most useful drug, one whose action seems to be almost specific, is strychnine, given hypodermically, and its administration is strongly recommended as a routine measure in all cases of œdema of the lungs.

Hourglass Stomach.

Robson (The London Medical Lancet, January 2, 1904) reports 23 cases of hourglass stomach, of which 19 were simple, and 4 malignant. Of the simple cases, 11 were operated on by gastroplasty alone and all recovered; 1, by gastroplasty and pyloroplasty combined, the patient dying, as did 1 in which anterior gastroenterostomy was performed. Of 6 patients treated by posterior gastroenterostomy all recovered. Of 4 cases of cancerous hourglass stomach 3 recovered, 2 being treated by partial gastrectomy.

The condition always owes its origin to definite organic disease. The author has never met with a single case of congenital hourglass constriction. The symptoms for a time entirely depend on the cause, whether that be ulcer, cancer, or perigastritis, but ultimately when the deformity has developed, the signs are more or less distinct, and the diagnosis can be made in nearly all cases. The symptoms are, for the most part, pain after food, vomiting sometimes of blood, and great wasting. Where the proximal pouch is dilated the symptoms are those of dilatation from pyloric stenosis. The passage of fluid from one cavity to the other may be perceptible to the patient, and cause an audible gurgle or murmur. On distending the stomach with carbon dioxide, the proximal cavity is often distended first, and later a sulcus may be seen between the two distended cavities. On washing out the stomach until the fluid returns clear, suddenly there may be a gush of foul fluid from the distal cavity. Sometimes the fluid cannot be made to return, but passes into the second cavity. In most of the cases the constriction is about four inches from the stomach. In nearly all cases spasm of the pylorus is present, due to the associated hyperchlorhydria. The treatment is purely surgical and should be undertaken as early in the disease as possible. Gastroplasty is usually most efficient in promoting a cure; it may be performed either by means of simple sutures, or over a large bone bobbin, but the opening must be large enough to secure union without tension. In cases of cancerous hourglass disease the surgeon may perform either gastrectomy or gastroenterostomy.

Method of Suturing the Prolapsed Kidney.

Augustin H. Goelet (Ann. of Surg., Dec., 1903) states that the essential points to observe in this operation are as follows: (1) The colon must be completely detached from the kidney, so as to obviate subsequent dragging upon it. (2) Reattachment must be prevented. This is accomplished by packing a gauze drain beneath and in front of the kidney and by early evacuation of the bowels. (3) The sustaining sutures must be inserted under the fibrous capsule in a manner to obviate tearing or cutting through that structure when

they are tied, and the suture material should be one that is permanent. The suture should not be tied to the muscles, but should be brought out upon the surface of the back. They should not be removed until sufficient time is allowed for firm attachment. (4) The kidney must be restored to its normal position, and should not be attached lower down where it may be compressed by the corsets or other clothing. (5) The detached redundant fatty capsule must not be permitted to come between the kidney and the structures to which it is to adhere. This may occur after closure of the wound, and is another indication for the packing of gauze around the lower pole of the kidney. (6) When both kidneys are operated upon, the patient must be kept strictly on her back during three weeks. When one has been sutured, she should be turned upon the affected side only. (7) The operation is indicated before the patient's health is seriously impaired and before the kidney has become diseased. A vertical incision made through the skin to the first layer of muscles beginning just below the last rib and extending downward along the outer border of the erector spinæ muscle for 3½ inches. The latissimus borsi is separated in the direction of its fibers. The fascia is next divided and the quadratus lumborum exposed. This is drawn inward. The transversalis fascia is next split downward by traction, which avoids wounding the iliohypogastric nerve and vessels. The fatty capsule bulges up into the wound. The kidney can now be located with the finger and delivered. The fatty capsule is opened with scissors and is completely detached from the kidney back to the hilum. The fibrous capsule is not split or detached from the kidney, nor is it scarified. Firm adhesion can invariably be secured if the kidney is held immovably in contact with opposing structures. To accomplish this, silkworm gut is a *sine qua non*. Two sustaining sutures are inserted upon the posterior aspect of the free border. These penetrate only beneath the fibrous capsule and are so placed that when traction is exercised upon them they will not tear out nor give way. The suture differs in several details from the Brodel stitch and is considered vastly superior to it.

The Mechanism of Posterior Occipital Positions.

W. B. Gossett (Am. Jour. of Obstet., Oct., 1903) says that in the R. O. P. position the occiput is directed toward the right sacro-iliac synchondrosis, the forehead toward the left acetabulum, the occipitofrontal diameter offering in the right oblique of the pelvis. The occipitofrontal diameter being longer than the right oblique of the pelvis, there is first flexion to allow the head to enter the brim, substituting the suboccipitobregmatic diameter of the head for the occipitofrontal. The force of the uterine contraction is transmitted through the vertebral column to the short pole of the fetal head, the occiput, so produces more flexion of the head. The head descends and the occiput, being the most dependent part meets the resistance of the pyriformis muscle and the soft parts as soon as it enters the brim. This resistance in the great majority of the cases (about 96 per cent.) starts the rotation of the occiput to the front, it rotating away from the point of resistance to that part of the pelvis where it has the least resistance, that is to the right and forward. This is the beginning of the second step of labor in R. O. P. position with a favorable termination, that is the rotation of the occiput through three-eights of a circle to the front. The resistance of the pyriformis muscle and soft parts is sufficient to cause the occiput to fall in front of the dividing line of the two inclined planes that is a line drawn from the tip of the ischium to the ileopectineal eminence, and in front of the spine, so the resistance of the tip is back of the occiput, and the occiput rotates along the right anterior inclined plane and under the symphysis. If the resistance of the pyriformis muscle and soft parts is not sufficient to start the rotation of the occiput to the front, then the occiput will pass on down and fall behind the ischial spine and onto the right posterior inclined plane, following its direction, which is downward, backward and inward, to the hollow of the sacrum. He does not believe that the occiput ever rotates forward after it passes posteriorly to the spine of the ischium. After it gets back of the spine it is hard to understand how it will rotate beneath the spine and to the front, or what will cause this rotation.

Is Sleeping Sickness of the Negroes an Intoxication or an Infection?

Ziemann (Journal of Tropical Medicine) in writing about this condition says:

Sleeping sickness of the negroes occurs in West Africa from Senegal down to Angola, and is characterized by sleepiness, which gradually deepens into complete stupor, and which, after months or years, leads to a fatal termination through coma from inanition. The disease only appears in certain districts, being entirely absent in regions near by. No undoubted case of sleeping sickness has ever been observed among white people; children under three years of age are very seldom attacked. The author reports a typical case of the disease

occurring in a Wey-negro, aged twenty-five years. The patient seemed stupefied, always seeking for a support when standing. The gait without support was reeling and staggering. When left alone, he promptly sank into a sound dreamless sleep. There was no evidence of any muscular paralysis or atrophy, nor of tremor or tonic convulsions. The patellar and other tendon reflexes were abolished, and Romberg's sign was marked. Sensation was diminished over the entire body. The pupils reacted to light and accommodation. The stools contained ova of *ascaris lumbricoides*. No malarial organisms were present in the blood, but there was a well-marked eosinophilic leucocytosis, and embryos of *filaria perstans* were constantly found. Bacteriological examination of the blood remitted negatively, and no development of the filaria embryos was ever noted. The patient was finally taken away by his fellow-countrymen to die. The following have been suggested as causes of the disease: (1) Filaria perstans, the embryos being localized in the cerebral vessels (Manson.) (2) Ankylostomum duodenale. (3) Diplococcus pneumoniæ (Frankel.) (4) Cagigal and Lepierre's bacillus. The writer negatives all of these, and holds that the disease is an intoxication similar to pellagra, which latter is due to the eating of rotten maïze. In localities where sleeping sickness prevails, there are two articles of diet which are universally used, viz., dried salt-water fish and manioc. The latter is known to be poisonous when raw, and it is a fact that manioc is freely partaken of raw in countries where sleeping sickness is prevalent. Cooking renders manioc innocuous, but such cooking must be thorough—a condition which rarely obtains. He therefore concludes that raw or uncooked manioc is the cause of sleeping sickness, and holds that preventive measures based upon this fact would soon bring about the disappearance of the disease.

Operative Treatment of Myoma During Pregnancy.

Frank (British Gynecological Journal, November, 1903) reports seven cases and concludes that operative interference is indicated: (1) During pregnancy, if the tumor is growing rapidly; if the circulation and breathing are disturbed; if there is reason to suppose that myoma may lead to a premature interruption of the pregnancy; if symptoms of peritonitis or incarceration appear due to the tumor; or if the myoma is a polypous one, or proceeds from the vaginal portion of the uterus (danger of disturbed nutrition.) (2) During labor, myomata of the pars intermedia should be enucleated if there is no chance of overcoming the obstruction with the prospect of a living child; perforation has to be considered when the after-coming head cannot pass the obstacle, or when the child is dead, or the mother has fever; moreover, when the tumor arises from the supravaginal portion abdominal enucleation and leaving the expulsion of the child to nature have to be thought of, and finally Cæsarian section and castration with or without the removal of the uterus.

Etiology of Rheumatism, Prevention and Management.

Winters (Medical Record, January 9, 1904) states that the disease is due to non-neutralized acid-products of proteid metabolism, and that the vital processes of tissue cells are dependent upon alkaline tissue fluids. Normally, these acid products are immediately neutralized by bases in organic combinations with proteids, and by alkali-carbonate from oxidation of vegetable acids. The alkalies of the blood are first drawn upon, thereby reducing its alkalinity, which causes destruction of the red corpuscles, CO_2 accumulates and oxidation is reduced. The severe symptoms of rheumatism are due to rapid and extensive withdrawal of sodium from the blood. The alkalies of the bone elements are attacked in prolonged acid conditions.

The absence of suppuration even in prolonged cases is due to the chemical nature of the affection and the recrudescence from time to time are to be explained only on the basis of faulty metabolism. Deficiency of basic substances and of vegetable acids in food, excessive animal proteid, imperfect oxidation, with defective elimination are the etiologic factors of the disease. Alcohol on account of interfering with oxidation and liver function fosters retention of waste products.

Cure and prevention are obtained by means of foods rich in basic material and vegetable acids combined with vegetable proteid and a minimum of animal proteid; bringing about proper oxidation and elimination.

Potassium and sodium salts are the ones of special consideration and must be taken in with the food. Vegetables, cereals, and fruits are specially indicated.

The Treatment of Hip-Joint Disease.

Taylor (Trans. Am. Orthop. Association) believes that in view of the power which improved methods of skiagraphy afford of locating small tubercular lesions in bone, and the means that we have at our disposal of disinfecting tubercular foci, such as carbolic acid and alcohol formalin, etc.,

and the whole question of the treatment of joint tuberculosis, should be reconsidered. Of late the tendency has been to avoid direct attack on the disease and rely on rest and fixation with attention to the general health, and to reserve operation for the evacuation of abscess and the correction of deformity in cases where the disease is quiescent. This has been probably a swing of the pendulum away from the older tendency to perform excisions in all cases, with the idea of eradicating the disease, but unfortunately leaving great shortening. He describes several cases where localized lesions in the head of the femur by means of skiagrams, opened the joint by an anterior incision, scraped out the focus, and disinfected the wound with pure phenol and alcohol, or 2½ per cent solution of formalin, and treated the case after by means of rest and fixation and attention to the general health. This is what he calls the rational or combined method of treatment, and claims that it shortens the treatment of cases and lessens the chance of recurrence, and is not open to the objection of causing shortening as excisions do.

In mild cases where no focus can be detected, he uses rest and fixation alone.

Treatment of Influenza.

Brandt (Therapeutic Gazette) deals with this subject under the following heads:

1. Hygienic Treatment.—It is unnecessary to go into details; we should allow plenty of fresh air, but should not endanger the patient by undue exposure, since we have in most cases pleurisy present and a varying amount of pneumonitis. We should allow the patient to sit up at an angle of about 40 degrees; this has for its advantages freer respiratory excursions and to a certain extent prevents or limits consolidations. The patient's mind is relieved by allowing the privilege. Again, the pleuritic pain is much relieved, especially if a binder or adhesive straps are tightly placed around the chest. One should insist that all expectorated material be collected in vessels filled with antiseptic fluid, as oftentimes a whole family will suffer from the disease by neglecting these directions.

2. Dietetic.—This should be principally liquids, such as milk, broths, gruels, and soft-boiled eggs. Plenty of water should be given.

3. Medical.—At the outset it is well to give calomel followed by a saline cathartic.

For the nasal passages and mouth we should use some mild antiseptic solution, either in form of a spray or douche, for it is essential that these parts should be kept clean.

For internal medication he emphasizes the value of the salicylates; they have almost acted as a specific, nearly as pronouncedly so as in rheumatism. It is advantageous not to give large, but rather frequent doses, as not infrequently renal irritation is seen from too large dosage. In regard to the form of sailicylates, sodium salicylate has been found most effectual in doses of five grains, according to the case and age, every two, three, or four hours. In cases with considerable pyrexia, phenacetin in combination has been found beneficial. Again, when there is much pleuritic involvement potassium citrate or liquor amonii acetatis has been given with good results. Codein has been given in severe pleuritic pains. It may be asked, how do the salicylates act? This, unfortunately, is a question hard to answer. If one compares the action of the salicylates in rheumatism and influenza, these two diseases have much in common. Can it be that the infection is similar?

In the action of the salicylates we must first think of their antiseptic properties; this is proven experimentally. Of course, in the sodium preparation we have somewhat less antiseptic property, but even here the sodium salicylate is changed in the blood into salicylic acid, which later unites with glycocoll to form salicyluric acid, and is excreted as such. Secondly, the salicylates are strongly diaphoretic and diuretic; in this way the system is relieved of a great part of the toxins, as is evidenced by fall of temperature and lessening of the pains.

Gonorrhea in Women.

Findley (Lancet Clinic, Jan'y 16, 1904), says in regard to treatment, that the acute stage rest must be enjoined, avoiding all physical exertion; cleanliness is essential to maintain by the free use of vaginal douches and baths. During the acute stage avoid the application of remedies by injections and swabs, since by their mechanical irritation they do more harm than good. No intrauterine or urethral applications of any sort should be made prior to the chronic stage. Large quantities of water, with five to seven grains of urotropin, may be given by the mouth for the purpose of flushing the bladder and urethra and of rendering the urine somewhat antiseptic. Even this can be overdone. In brief, we may say that rest and cleanliness are the essential measures during the acute stage. After the acute symptoms have subsided, and we do well to proceed with caution, we may apply antiseptic solutions direct to the urethra by injecting a 10 per cent protargol solution daily, and by curetting the uterus and applying pure formalin on a swab. When pus accumulates in the appendages or pel-

vic cavity it should be removed, though much may often be done to favor absorption by such conservative methods as hot douches and glycerin and ichthyol tampons.

During the acute stage the abdomen should never be opened, no matter what the condition, unless perhaps to drain a general peritonitis. If the pain and toxic absorption demand interference, the abscess must be drained through the vagina or not at all. The danger attending the opening of the peritoneal cavity is too great to permit of such interference. It is seldom necessary to drain even in the presence of an acute abscess. As a rule, rest, douches, glycerin and ichthyol tampons will afford symptomatic relief and tide the patient safely into the chronic stage, when drainage may be opened and the diseased structures removed.

Ectopic Pregnancy.

Herman, in the British Medical Journal, speaks of the indications for operative vs. expectant treatment in ectopic pregnancy. If the diagnosis can be made in the very earliest stage before hæmorrhage has taken place, undoubtedly the pregnancy should be removed by abdominal section. But owing to the great difficulty of accurate diagnosis, this operation is and will continue to be, rarely performed. In the next stage, where the chorionic villi have perforated the tube on its peritoneal aspect, and profuse hæmorrhage into the peritoneal cavity occurs, the abdomen should be at once opened and the ruptured tube removed. The operation is one of the simplest and easiest in surgery. In many cases the bleeding takes place into the chorion or the tube, the bleeding soon ceases, and a "tubal mole" results. While nearly all such tubal moles are absorbed, yet the patient is in some danger of death, and in considerable danger of long illness. Perforation or suppuration may occur or a pelvic hæmatocele may form; so that the author advises the removal of the tumor in every case. In cases of pelvic hæmatocele in Douglas's pouch, expectant treatment should be adopted for the first few weeks; in many cases the symptoms will disappear and the tumor decrease markedly in size. When no change takes place recovery will be hastened and made more sure by operation. If the uterous is much displaced and there are other evidences of the effusion being shut in and incysted, the blood can be let out through a vaginal incision. But where the fœtus is still living or the case is complicated, abdominal section may be advisable. In the second half of ectopic pregnancy any untoward event is a very rare thing. Spurious labor, though disagreeable, is not dangerous. The child dies, the liquor amnii is absorbed, and after about six months suppuration begins. It may be prolonged beyond this period, or it may never occur. The removal of an ectoptic pregnancy during its second half, while the child is alive, is a very dangerous operation, and should not be performed until after spurious labor has occurred. As soon as symptoms of suppuration appear (fever, etc.) the child should be removed. In certain cases, where the intervening tissues are thin and one pole of the fœtus is downward, it is possible to remove the fœtus per vaginam, thus avoiding the risk of infection of the peritonæum. The placenta need not be removed, as it gradually comes away if the cavity is frequently irrigated.

Acute Pancreatitis.

Drs. Hogarth and Moynihan (The London Practitioner) describes a case of this disease. The patient, æt. 75, was of active habits, but stout and short—a hearty eater, accustomed for the last 20 years to attacks of vomiting at intervals without pain. For the last two years he had had persistent dyspepsia. On 2nd November, 1902, a hearty midday meal was followed by distension not relieved by vomiting. Pain developed in the epigastrium and quickly became agonizing, with retching and attempts to belch. The pulse was full, 80, and the temperature subnormal, no collapse. The bowels were always regular and had been opened that morning. The urine was normal. Next day the retching continued, only a little mucus and water coming up; temperature subnormal. The abdomen was full, not distended, quite resonant all over, with no rigidity of the abdominal muscles, liver dulness normal. There was some tenderness high up in the sub costal angle, and intense pain in the epigastrium was present. The diagnosis veered between biliary colic and perforation. Nutrient enemata and salt solution were given by the rectum. The temperature remained sub-normal. The pulse 100 per minute, the retching continued at intervals. The tongue was dry and coated with yellow fur, but neither sweating nor rigor occurred. An exploratory incision was proposed but declined. On November 4th, things improved, but although the abdomen was more distended and tympanitic, the patient insisted on going down stairs. The bowels were freely open. This was followed by a bad night, and the next day he continually vomited a dark sour fluid which was without any fæculent odour. It was brought up without any trouble—apparently typical peritonitic vomiting. There was much distension but still no rigidity, and very little tenderness, which could only be detected in the sub-costal angle. The

tongue was dry and thickly coated, the pulse 120, the temperature subnormal. There were large bluish black blotches on the abdomen, thighs and legs, but the features had no abdominal aspect. On November 6th the pulse was 124, the temperature subnormal, the bowels moving twice of their own accord—bulky and black perhaps due to bismuth, the abdomen less distended and tympanitic. During the day, November 7th to 12th, the symptoms all gradually abated, the blotches disappeared, the bowels acted freely. There was practically nothing abnormal in the abdomen. On November 14th the pulse rate had begun to rise, and the temperature was 100 deg. F. for the first time.

On November 17th a rounded lump projecting downwards into the right hypochondrium could be indistinctly felt deep in the abdomen.

On November 18th to 20th he lost ground, pulse steadily rising, there was no pain nor any great tenderness or tympanites.

On November 21st a large rounded swelling stretched across the abdomen just above the umbilicus from one nipple line to the other. There was complete resonance over the mass and the rest of the abdomen; liver dulness was normal. A peculiar motion was now passed quite suddenly, extremely foul smelling, and said to contain little yellow seeds swimming in the black fluid. It was followed by normal motions. Nothing abnormal per rectum digitally. The swelling was not reduced in size. Abscess of the lesser sac of the omentum following a gastric ulcer was diagnosed. As a result of a further examination of the swelling, the tumor was diagnosed as a distended gall-bladder with local peritonitis. The pancreas was not considered.

On opening the abdomen after dealing with many adhesions, the tumor was recognized as pushing forward the stomach, and with the finger passed backwards above the stomach, the lesser omentum was felt to be bulging forward. A small hole was made into the lesser omentum from whence pus gushed out. The orifice was isolated with packing, and two pints of blood-stained fluid evacuated. The pancreas was found to be necrotic, and much was removed. Two large drainage tubes were passed through the lesser omentum into the sac and were packed in. The patient died from shock twelve hours after operation.

A limited examination showed that the surface of the gut was normal, but that the transverse colon ran through the hard, tough, and greatly thickened omentum. The right hypochondrium was normal. No pus, no matting. The gall bladder was a little enlarged and contained a stone. The foramen of Winslow was quite closed. The hand passed through the lesser omentum into a cavity below the greater curvature of the stomach.

Arterial Thrombosis of Gonorrhoeal Origin

Moore (The London Lancet, December 19, 1903) reports a case with this origin. Endocarditis and phlebitis of gonorrhœal septicæmia are known, but arterial thrombosis has apparetly not been noted. A man, aged twenty, had dry gangrene of the leg after a few days of feverishness. The condition of the leg came on insidiously. The leg below the tubercle of the tibia was cold, pulseless, and anæsthetic, and there was commencing mummification of several toes. There was a purulent discharge from the urethra, in which gonococci were found. Heart normal. Death eight days after the initial rigor.

Necropsy.—Heart normal, except for some degenerative changes in the myocardium. Below the renal arteries the aorta was completely occluded by a firm, adherent thrombus, which extended into both common, internal, and external iliac arteries, and on the left side into the common femoral. The rest of the arterial system and the veins were normal. Left kidney necrossed owing to thrombosis of renal artery. Purulent posterior urethritis.

He believes that the thrombosis was of gonococcal origin. No cultures of blood were taken, but gonococci were found in the thrombus. Two poseibilities are suggested: (1) infection of small prostatic branches of the internal iliac and an ascending arteritis; (2) infection of the intima of the common iliacs by organisms in the general circulation. He believes further, that the thrombosis was part of a general gonorrhœal septicæmia.

Significance of Pain and Tenderness in Cases of Inflammation of the Appendix.

Mansell Moullin (The London Lancet) says that: (1) Absence of pain is no indication that the most serious mischief is not going on. On more than one occasion he has operated and found the appendix on the point of giving way in spite of the patient's protestations that he had never had more than a twinge of pain. (2) The initial pain of acute inflammation of the appendix, which is so commonly referred to the umbilicus, is due to the peristaltic action of the æcum or the appendix dragging upon the attachment of the peritoneum to the abdominal wall. This is especially likely to occur when the appendix is fixed by adhesions, or the mesentery is short or twisted upon itself. In one case of inflammation the appendix in which Lennander was operating under local anæsthesia, the slightest

traction upon the anterior layer of the parietal peritoneum caused pain, which the patient spontaneously described as exactly like that which he suffered during an attack. (3) The cessation of this umbilical pain without improvement in the other symptoms is due to cessation of the peristalsis caused by the inflammation having spread to the muscular coat of the bowel. When this occurs, the wall of the bowel is no longer able to contract, and this source of pain disappears. That this is so is shown by the fact which the author has often pointed out, that the cessation of the umbilical pain is coincident with the formation of a local swelling, which at this stage of the disease is due to the distension of the bowel and thickening of its walls by inflammatory exudation. (4) The development of local pain, which as a rule precedes by some short time the cessation of the umbilical pain, means that the inflammation has spread from the appendix to the parietal peritoneum, or to the post-peritoneal cellular tissue. These are the only structures concerned (at this period of the disease) which are supplied with nerves capable of transmitting the sensation of pain. Absence of local pain does not indicate anything. Severe pain is of serious import, as it implies either wide extent or great severity of inflammation.

Kocher's Ideal Operation for Hernia.

Stevenson (Doublin Journal of Medical Science) records some cases of radical cure of hernia and describes the procedure of this operation which he says is not to be found in English text books. The fibres of the external oblique and the external ring are clearly exposed by a skin incision over the inguinal canal. The coverings of the cord are divided longitudinally, and the sac is islocated as far as the internal ring. A small opening is made in the side of the sac, and the finger is passed into the general peritoneal cavity to insure that the sac is empty. The apex of the sac is grasped by the point of Kocher's hernia forceps. The apex is invaginated into the body of the sac and then made to pass along the inguinal canal through the neck of the sac into the general peritoneal cavity. The skin is retracted upwards. The point of the forceps is made to project against the anterior abdominal muscles above and external to the internal ring. The point is then exposed by a small incision through the muscles. The sac is drawn through this opening at the same time that the hernia forceps are released and withdrawn. The sac by this procedure is inverted and has its peritoneal surface outermost; its position and direction being completely altered with the neck projecting against the anterior abdominal wall. The sac is transfixed, ligatured, and amputated close to the abdominal muscles. The forefinger is now passed along the canal in front of the cord, and seven or eight Lembert's sutures are passed, the first being through the muscles above the sac. The second and third sutures are passed so to go through the neck of the sac besides the two edges of muscles. The remainder are passed through the anterior wall of the inguinal canal, the last approximating the pillars of the external ring. With the aid of a director when tying these sutures a puckered groove is formed, which projects backwards into the canal along its whole length.

He estimates that this operation, is possible in about 25 per cent. of all his cases.

The advantages of this operation as compared with Bassini's, are: (1) There is less injury to the tissues in that the external oblique muscle is not divided along the inguinal canal as in Bassini's operation; (2) and hence the patient can be allowed about sooner, and (3) should suppuration occur and the deep stitches gives way, the parts are in no worse condition than before the operation. But Bassini's operation is preferable: (1) in most congenital hernias with the sac intimately connected with the cord; (2) when the inuinal canal has to be explored to find the sac.

Sterility.

Horrocks in the London Lancet says, to produce a healthy child, it is necessary that there should be: (1) a living ovum; (2) one or more living spermatozoids; (3) that these two should meet and coalesce; (4) that the meeting place should be a suitable one; (5) that the ovum after impregnation should anchor inside the uterine cavity; (6) that the human nest (endometrium) should be healthy; and (7) that there should be nothing to prevent the uterus from developing to term, or at all events, to such a time that the child is viable. Now anything interfering with any of the above conditions is capable of causing sterility. Fat women are apt to be sterile, as obesity seems to connote imperfect action of the ovaries. Too much and too rich food, anæmia, interbreeding, are all apt to cause sterility through interference with the proper maturation of the ova. In about one out of ten cases sterility is the fault of the husband, living spermatozoids being either absent from his semen or feeble and scanty in number. But probably ninety-nine per cent. of all cases of sterility are due to some cause which prevents the spermatozoid and ova from meeting. A double salpingitis causes sterility in this

way; prostitutes are sterile largely through gonorrhœal mischief in the tubes. The power of travelling on the part of the spermtozoid is also of great importance. Coitus is by no means synonymous with conception; probably the best time for a successful coitus is a day or two before the "menstrual aura." The Falloppian tubes may be bent, distended with fluid, or even after ovum reaches the uterus, there may be present a gonorrœal endometritis which will kill it. In imperforate hymen and absence or occlusion of the vagina, the spermatozoids are also prevented from reaching the ovum. Vaginismus or dyspareunia may result in the entire ejection of the semen. Chronic vaginitis, either simple or gonorrhœal, is a prolific cause of sterility, acting by killing the spermatozoids. Routine vaginal syringing often prevents conception, even when performed hours after coitus and for cleanliness alone. The endometrium must be healthy; where its surface has been destroyed by curetting, it may be incapable of performing its function. Fibroids and other growths in or near the uterus frequently cause sterility. *Treatment.*—Where a woman is healthy and no cause for the sterility can be ascertained and she has not been married for a full three years she should be let alone. A spare diet and plenty of work or exercise are of service. Drugs and alcohol should be let alone, but tonics are often of service. A change of environment is often a cure for sterility; as a rule, a warmer climate is best. When the husband has had syphilis, a course of specific treatment of the wife may be of service. Local treatment depends on the findings of the examination: cure vaginistis, remove tumors, dilate the vagina in vaginismus, curette the uterus for chronic endocervicitis or endometritis, etc. Inflammatory or other troubles of the tubes and ovaritis are hard to get at, and there is little to do (outside of operation) but look after the general health of the patient. And finally advise as to proper coitus and regulate the habits of the woman (use of douches, etc.)

Perineal Prostatectomy.

Maitland (Anstral. Med. Gaz., July 20, 1903) states that the prostrate should never be attacked by the urethral route, because any operation done *per urethram* alone is done in the dark; this method does not permit of tactile or visual examination, neither can the obstruction be thoroughly removed, nor the bladder drained. He believes the perineal route in almost all cases is the best. (1) It is the most direct route anatomically. (2) Drainage is more satisfactory. (3) Much injury to the bladder is avoided. (4) There is less danger of sepsis. (5) There is less shock. (6) The prostate is more in view during enucleation. (7) Perfect drainage takes place in the semi-recumbent position, which is of advantage in old patients. (8) The shortening of the convalescence. (9) The prostatic urethra is better preserved. (10) There is less hemorrhage. What hemorrhage occurs is better controlled. The writer prefers Kocker's transverse incision and recommends a free transverse division of the triangular ligament. The prostate is pulled down by a curved sound through the prostatic urethra, with 2 fingers in the rectum and downward traction by a volsella.. If the prostate does not come down easily, and is far out of reach, the middle commissure is at fault, a suprapubic cystotomy is done, and the operation completed by that route, using the perineal wound for drainage, or the enucleation may be carried out through the perineum, aided by pressure from above through the suprapubic wound. The small, hard, firm prostate should not be enucleated, but a "low-level" urethra should be made by the electrocautery, either through a perineal or suprapubic opening.

Treatment of Nephritis by Reduction of Chlorides.

Fernand Widal and Adolphe Javal (La Presse Medicale) conclude from their researches into the pathological physiology of œdema, hydration, and albuminuria in epithelial nephrites that a temporary treatment by the reduction of chlorides is the best at certain stages of the disease. Milk is of special benefit by reason of its poverty in chlorides. Other substances, even foodstuffs rich in albuminoids, as meat, or in carbohydrates, as bread, sugar and potato, or in fat, as butter, together with rice and pastries, may be taken with even more confidence than milk, provided that no salt be added. These substances contain the least possible amount of chlorides, even less than milk.

In another article, entitled "The Danger of Administering Sodium Chloride to Patients with Bright's Disease or Cardiac Affection with Threatened Anasarca," which appeared in Lyon Medical, July 5th, 1903, M. J. Courmont recalls the fact that the equilibrium of molecular "isotonia" in the system is maintained by the elimination of ingested salts by the emunctories; these salts, having become hypertonic, attract the watery part of the serum and cause œdema. When, therefore, the kidneys become impermeable to sodium chloride, this substance passes into the tissues and causes œdema. Hence, if a patient has reached the stage of dropsy, it is dangerous to let

him take salt unless the kidney largely eliminates it. Injections of artificial serum may thus become elements of great danger. —Indian Medical Record, Dec. 9, 1903.

An Antituberculous Bacillus.

Maher (Medical Record) says that the last microorganism to remain alive in some samples of milk from a tuberculous cow was a sporogenic, liquefying, facultative, anaerobic bacillus, that this bacillus could be injected into animals without harming them, and was closely akin to, if not identical with, bacillus mycoides (Conn.) He says that he injected pure live cultures of this bacillus into nearly one hundred patients suffering from pulmonary tuberculosis, and emphasizes the following points: (1) This bacillus can with safety be injected alive and in pure culture into the human system. (2) After its injection it remains alive in the human system often for weeks, and does no other harm than occasionally to cause slight suppuration. (3) After its injection it causes a variable febrile reaction which is never serious. (4) After its injection it has been found in the urine, blood, and sputa. (5) After its injection into the groins of persons suffering from tuberculosis there is often a subjective sense of local reaction at the site of the tuberculosis lesion. (6) After its injection into the connective tissue about a tuberculous fistula *in ano* a marked improvement, even in the closing of the fistula, followed. (7) A cure of tuberculous otitis media in several instances followed a local injection of cultures. (8) After its application on gauze or cotton packing to sinuses leading from carious bone supposedly tuberculosis, such sinuses have healed with surprising promptness. (9) Its hypodermic injection into patients suffering from tuberculous of the lungs has been followed in many cases by relief of such symptoms as cough, fever, night sweating, wasting, anorexia, diarrhea, and hemorrhage. (10) Its instillation into the open tuberculous pleural cavity has caused the drying up of a purulent discharge that was resistant to ordinary methods of treatment. (11) Its hypodermic injection into consumptive patients has in several demonstrable cases been followed by the apparent cure of the disease. (12) As a valuable scavenger of the tuberculous human system, this bacillus claims the interest of the medical profession for the further reasons that it grows in acid or alkaline media, that its product is alkaline, that it grows in the presence or absence of air, that it feeds only on dead matter, that it grows more quickly and has more vitality than the ordinary pus-producing germs, and that its introduction into the human tissues is followed by a marked diminution of the number of ordinary pus-producing germs present in the body. (13) Some, as yet incomplete, investigations would seem to show that this bacillus is not without beneficial effect in other pathological conditions than tuberculosis.

Phototherapy.

Drs. Barnard and Morgan (Brit. Med. Journ., November 14, 1903) have studied the question of phototherapy, in order to determine to what agencies the therapeutic effects may be attributed. The first question is whether the result is due to the bactericidal power of the bright, or to the reaction which it excites in the tissues. In other words, in the case of lupus, does the light kill the bacilli, or does the tissue reaction caused by the light set up a condition in which the bacilli cannot grow? It is well known that light without heat destroys microbes outside the body, but whether they are destroyed when in the body is doubtful. Light is powerless to destroy bacteria when the rays pass through any organic substance before reaching the bacteria. This has been proved in the following way: The light from an automatic arc-lamp was passed through a metal cylinder, closed at each end with a disc of quartz. The cylinder was cooled with water. An agar plate, inoculated with the *Bacillus coli*, was exposed to the light directly after inoculation, and then incubated for twenty-four hours. The light was only allowed to fall on a part of the plate, so that on the other part the organisms should grow and serve as a control. A current of 7 amperes was used at a distance of 10 centimetres. When exposed for eleven seconds the number of surface colonies was much reduced; but those deeper were unaffected even after two hours' exposure.

Again, a portion of human skin was placed on the quartz. An agar plate, with *B. coli*, was placed so that the light fell on it after passing through the skin. After two hours' exposure no effect was produced on the bacilli. The same experiment was done with a living and with a dead frog's foot, interposed in the same way, and with negative results. The light passing at the side of the frog's foot produced a destruction of almost all the surface bacilli, while those protected by the semi-transparent webbing of the foot grew normally.

From these experiments they conclude that, the bactericidal rays being non-penetrative, the therapeutic effect of light may possibly be due to the reaction produced in the tissues rather than to the direct bactericidal action of the rays themselves.

They tried to differentiate between the

rays which are bactericidal and those which excite reaction in living tissue. In this they were only partially successful. While the exact positions of the bactericidal rays in the spectrum were found, the reactionary rays were unlocalized.

Treatment of Mycosis Fungoides by X Rays.

Marsh (Amer. Journ. of Med. Sci.,) mentions a case of mycosis fungoids which was improved by X-ray treatment. The patient was a woman of sixty. The affection began ten years before with a small red spot in the back of the neck, which increased to two inches in diameter. After four years hard lumps appeared in the margin, which coalesced, and grew to ½ inch above the surface of the skin. The upper edge became ulcerated. Seven years after the appearance of the first spot a similiar process began on the nose, which enlarged into a tumor, 1½ by 1 inch. A few points of ulceration. From the centre of this projected a red cystic outgrowth. After this a growth formed on the lip, and became ulcerated. The lesions were treated alternately with ten minutes' exposures. In all fifty-one exposures were given. After this all the lesions disappeared.

Infantile Paralysis.

It is commonly known that Sir Walter Scott had a slight limp in his gait, but it is not so generally known that this was the result of poliomyelitis when he was about eighteen months old. However, this is by the way and does not form the subject of this communication. That infantile paralysis is due to a primary lesion of the cord was first established by Cornil and Charcot, it was who pointed out that the cells in the anterior cornua are chiefly affected. Evidence has been accumulating of recent years to the effect that the initial lesion is a vascular disturbance connected with the distribution of the central branches of the anterior spinal artery, and that this vascular disturbance is caused by some toxic agent. In support of this, we have the records of a good many epidemics of poliomyelitis noted by various reliable observers; in Europe the disease is most frequent amongst children in the first three years of their existence, and its most common time of onset is during the warm months, from June to September, when diarrhœa of microbial origin is prevalent.

Anyone with an experience of children's diseases in India is aware of the frequent occurrence of this disease amongst infants and young children of European parentage. Drs. Tubby and Jones have made a special study of infantile paralysis in England, and they have been struck with the remarkable frequency of cases amongst children born in India or in the tropics, who had spent their first three years in these warm climates, i. e., during the period when this disease usually occurs, and in climates where bowel-complaints are commonest and most fatal amongst European children. This is suggestive of a microbial origin, or of a toxin absorbed through the alimentary canal. Indeed several observers are at work searching for a specific germ, which some of them believes they have succeeded in finding.—The Indian Medical Gazette.

Opium in the Philippines.

It appears that the Americans, like ourselves have an opium question and people who agitate against the use of the drug. A bill proposing to place the opium trade of the Philippines in the hands of a single concessionaire has caused bitter opposition, and has resulted in a committee being appointed to investigate and report on opium traffic in Japan, Formosa, Hong-Kong and China, Java, the Straits Settlements and Burma. The committee consists of Major E. C. Carter, Surgeon, U. S. Army, a bishop and a Filipino representative.

Apparently Government desired to sell the opium concession to a syndicate, and thus to realize a certain amount of revenue; but the Church and the Chinese have combined to frustrate this, though from very different motives. The Evangelical Alliance disapprove *in toto* of the sale or use of opium in these lands, whereas the Chinese object to any restriction being put on the sale of cheap opium. Should this American Exeter Hall succeed in blocking the bill, the immediate result will be that "the wily celestial, as he smokes more smuggled opium at a less price and under less restriction, can smile to himself at the easy way the white man can be fooled when he looks at a practical subject through the glasses of sentiment."—Boston Medical and Surgical Journal.

Sulphur as a Disinfectant.

Calmette (Rev. d'hyg., Paris), is an important paper dealing with the efficacy of sulphurous acid as a disinfectant, points out the relative effiiency of the gas generated in various ways. As a result of his experiments, he states that, if absolutely free from anhydrous sulphuric acid, as in the case of liquefied sulphurous acid, in siphons, it is absolutely without effect on pathogenic organisms, and is only very slightly diffusible.

When the gas was produced by the direct combustion of sulphur in air, it contained 0·1 mgrm. of sulphuric anhydride per litre, and when generated by the Clayton apparatus, from 4·2 to 6·46 mgrms. per litre while

the liquid sulphurous acid in siphons contained no sulphuric acid whatever. His general conclusions are—(1) that sulphurous acid, produced either by burning sulphur in air or by means of the Clayton apparatus, possesses a disinfecting action on certain early destroyed micro-organisms, such as *S. erysipelatosus and B. typhosus*, when they are in conditions best suited for resistance, namely, protected by a dried albuminous envelope; but that it cannot be relied upon for resistant pathogenic organisus, such as *B. diphtheria*, *B. tuberculosis*, or for spore-bearing organisms generally. (2) That the disinfecting properties of the sulphurous gas are due to the presence of anhydrous sulphuric acid in greater or less proportion. The results obtained by the Clayton apparatus are better than those obtained by burning sulphur directly in air on account of the larger proportion of sulphuric acid produced in the former method. (3) The sulphurous acid produced by the expansion of the liquefied gas is without disinfecting effect, even in concentrations of 22 per cent., and ought not to be employed for disinfection of places contaminated by the germs of infectious disease. (4) That for efficient disinfection, as regards pathogenic organisms which can be destroyed by the mixture of sulphurous and sulphuric acids, the concentration of the gas must not be less than 8 per cent., for a period of at least two hours, and that there must be proper mixing of the gas with the air of the apartment to ensure penetration.

Calmette consequently thinks that, in part at least, confidence in sulphurous gas as a disinfectant should be restored. He does not suggest its use instead of formalin in the disinfection of ordinary apartments, but thinks it should be used for the disinfection of large places, such as ships, barracks, grain stores, libraries, and all places where it is desired, in addition to destroying such organisms as *B. pestis*, *B. cholera*, *B. typhosus*, *and S. erysipolatosus*, to ensure the destruction of insect parasites, or mosquitoes and rats.—Indian Medical Record.

The Time Limit in Diphtheria Quarantine.

Apropos of a recent report of a committee appointed by the Philadelphia County Medical Society, attention should be called to the results of an investigation which bear directly upon one of the subjects discussed in the report. The committee in question was appointed to suggest methods for the control of contagious diseases by the municipal authorites. Their report contained the recommendation that quarantine of diphtheria cases should be raised at the expiration of two weeks from the time of clinical recovery without making cultures from the throat of the patient. The committee admitted that this method would occasionally allow the release of a person capable of transmitting the infection, but this was thought to be outweighed by the disadvantages of requiring negative cultures as a criterion of release. The principal disadvantages were said to be the fostering of entire evasion of such quarantine law, and the detention of some people, who, although cultures were still positive, were incapable of conveying infection. The investigation to which we refer was made by Dr. T. W. Salmon in the State Hospital at Willard, N. Y. The value of the series of 100 cases reported, lies in the fact that the period of isolation was made as long as desired without hardship to the patients, and also that they were under observation for a long time after release from quarantine. The results of the study are exceedingly valuable and should be read in the original.[1] Briefly it is shown that if all the persons in the series had been released two weeks after the onset of the disease, 60 would have been still infected with diphtheria bacilli. If three weeks had been the limit, 37 would have been infected, and if four weeks, 27. The finding of one negative culture was found to be inefficient, but when two negative cultures from the nose and throat were obtained subsequent to a time limit of two weeks, only six persons were found afterward to be infected. Salmon suggests as a requirement that is not unfair to any, the finding of two negative cultures taken on alternative days from both nose and throat after two weeks have elapsed from the onset of the disease. The occurrence of diphtheria bacilli in the throats of people apparently well has given rise to much confusion regarding the question of quarantine, but it seems to a candid observer that the release of patients recovering from an attack of clinical diphtheria after the expiration of an arbitrary time limit is unsafe. It is true that the convenience of patients is much, but the prevention of diphtheria is more. It is to the credit of the County Medical Society that the report, of which we have discussed but one recommendation, was referred back to the committee for revision.—American Medicine.

A Forgotten Physician.

It is seldom remembered that the originator of the "Higher Criticism" of the Hebrew Scriptures, and thereafter of "Higher Criticism" in general, was a professor of medicine. Jean Astruc, a man of much distinction in his time, was born in 1684, and eventually held chairs at Toulo-

use, at Montpellier, and at Paris. He was a man of wide learning, both in the medical sciences and in letters, and as a teacher he had a European reputation. A voluminous writer, his most important book in the sight of his contemporaries, was entitled "*De morbis venereis libri sex*," which enjoyed great vogue and was translated into English. The apparently in conspicuous book, but for which Astruc would long ago have been forgotten, is a small monograph which was probably regarded by its author as a mere bagatelle. The "*Conjectures sur les memoires qui ont servis a Moise pour ecrire la Genese*" is an epoch-making work in the history of literary criticism, and is so merely by the clue which served Astruc to distinguish one author from another. In certain passages in the Book of Genesis, and particularly in the account of the Creation in the first two chapters, the Deity is described as *Elohim*, while in others the word *Johveh* is used. The transition from one passage to the other is always abrupt, and Astruc pointed out the strong probability that they were written by different hands. It is beyond our sphere to discuss questions of literary criticism, but it is interesting to note that the sole originator of what is rightly called scientific criticism was himself a medical man, and a scientific writer of no small repute. At the same time it is passing curious that the pioneer in such a subject should have been, not a scholar, but a specialist in venereal disease.—Medical Press and Circular.

Exodin, a New Purgative.

By Prof. Wilhelm Ebstein.

Exodin, the diacetylrufigallic-acid-tetramethyl-ether, is a yellow powder melting at 180 to 190 deg. C. It is odorless and tasteless, insoluble in water and with difficulty dissolved in alcohol. Since Jan. 13, 1903, I have experimented with it very extensively in the University and in my private clinic as well as in consulting practice. This paper is based upon numerous histories of more or less obstinate constipations in males and females of all ages.

The remedy nerve causes unpleasant by-effects, such as dyspeptic symptoms or eructations. It usually acts in from 8 to 12 hours. The unpleasant diarrheal discharges produced by many otherwise effective purgatives are absent with Exodin. In most cases the first passages are mushy and even solid. In the course of the next few hours there are usually from one to three more passages, the last being not infrequently thin. The faeces preserve their natural color. In extremely rare cases the first evacuations are diarrheal; entirely watery discharges were hardly ever observed. Once in a while the remedy may be ineffectual, but this is wholly exceptional.

The action of Exodin is midway between laxative and purgative. It can be used as an evacuant in simple constipation in otherwise healthy persons and also when sluggishness of the bowels is an accidental complication or a part of some other affection. In pregnancy, even during the first two months, Exodin has when all other laxatives failed proved very efficacious and harmless, effecting evacuation of abundant stools without any trouble. The use of the drug at intervals showed that it is always equally active whenever readministered. (A table here appended shows the action of the drug in 18 typical cases.)

For obvious reasons, a universal purgative suitable for all faecal retentions, will probably never be discovered. But the properties which Exodin exhibits enable me to welcome it as a most valuable purgative.

To find the indications for constipation remedies requires especially a careful abdominal examination. In my book on Chronic Constipation I have gone fully into all the points involved. There is too much routine prescribing done here; those who are perpetually talking and writing against quackery must not forget the importance of depriving the quacks of their weapons.

Too much must not be demanded of Exodin. We cannot expect the intestines to react at once to the purgative in cases of old chronic coprostasis which is kept up by hard and dried scybalae accumulated in the large intestines; or in spastic constipations in which the spasm of the intestinal muscles prevent defecation; or where paralytic conditions cause the retention. When the intestinal canal is weakened, its refusal to perform its functions becomes more and more obstinate as we irritate it, either by large doses of mild purgatives or by the always reprehensible method of employing socalled drastic evacuants. When hardened faecal masses are accumulated in the large bowel and purgatives are ineffectual, the socalled high-oil enemata are indicated. But the acid content of the oil, increased though it is in the gut, is not infrequently unable to irritate the large intestine sufficiently to cause the expulsion of the faeces. To aid in this, I employ purgatives which I call "propellers" and which are extremely important in the treatment of chronic coprostasis. A proper combination of the oil with them must be made, care being taken to strengthen and not to weaken the

From the Gottingen University Medical Clinic; read before the Gottingen Medical Society, Dec. 3, 1903; abstracted from the Deutsche Medizinische Wochenschrift, Jan. 1, 1904.

intestinal action. In my book on Chronic Constipation I gave a list of the propellers at that time known to me.

The result of very extensive experimentation with Boudard's ricinine pills has caused me to reject them. But Exodin has done me excellent service as a "propeller;" since I use it for that purpose I have completely given up calomel and castor oil. Frequently 15 grain doses of the remedy sufficed with oil enemata to secure satisfactory evacuations. (A table showing the results obtained in six cases of coprostasis in which 15-grain doses of Exodin was used with oil enemata of up to 10 ozs., is appended.)

Over purgatin and emodin (see my report on both remedies in the Therapie d. Gegenwart, Jan. 1902) Exodin has the advantage of greater efficiency, results being obtained with smaller doses. Besides, it does not make the urine staining, to which women, for readily understood reasons, so strongly object.

Patients suffering from the severest forms of chronic constipation who had tried all possible remedies and whose judgment was unimpeachable preferred Exodin on account of its prompt, painless and efficient action to all other medicaments.

I made an extensive series of experiments with Exodin, adding it to the oil enemata, but the administration by mouth seemed to act better.

Exodin is marketed in the form of 7½ grain tablets, which are tasteless and odorless. One tablet is enough for children. Adults take from one to three tablets; two, however, are usually sufficient to produce one or several mushy stools within 8 to 12 hours. The tablets should be allowed to distintegrate in a suitable quantity of water and the mixture drunk under constant stirring with a spoon. Any Exodin remaining in the glass should be rinsed down with additional water. This method insures the introduction of the remedy into the stomach in the finest possible state of subdivision.

In the Therap. Monatshefte, Nov. 1903, Dr. Sembritzki, of Konigsberg, Prussia, says that formalin is most effectively and conveniently used as pastils vaporized in the formalin lamp. Its employment effects both the inhibition of germ growth and deodorization. It rapidly destroys the bad odor of waiting-, sick-, bed-rooms and nurseries. It is wholly free from fire danger. The flame should be turned so low that but one pastil is vaporized in the course of a night. This causes no discomfort whatever.

The author is greatly pleased with the action of the formalin lamp not only in infectious diseases, but especially in affections of the respiratory organs, where air purification is essential, as in coryza, brochial catarrhs, influenza, phthisis, etc.

Especially brilliant results has the lamp given in whooping cough. The toxine of pertussis is still unknown, though its specific germ has been isolated; but it is doubtless present in the breath and sputum. Efforts have long been made to sterilize the air by ventilation, phenol, etc. Here formalin vaporization renders the air antiseptic as well as aseptic. The author prescribes it for every case of pertussis and always had excellent results; often the disease is cut short and generally it is rendered much shorter and milder. Similar experiences have already been recorded by Dr. Jezdik, of Prague (Zeitung der bohmischen Aerzte, Sept. 14, 1901) and Dr. Lamallerée, Varennes (Revue Mensuelle des maladies de l'Enfance, Feb. 1902). If the vaporization is carefully controlled, no irritation will be set up. The lamp should contain 2 or 3 pastils, the flame being kept very low. It is placed into the sick-room or into an adjoining apartment. The room in which the patient is kept should be exchanged every day and the one not used should be well aired.

Is it not true that nine-tenths of the cases of illness coming under the care of a physician are characterized by fever and pain? Is it therefore not obvious that much of the success that comes to medical men is owing to the more or less prompt relief given to these conditions? From this standpoint Febrisol Liquid (Tilden's) should command the special respect of the medical profession as a certain means of making friends, money and reputation. Febrisol Liquid accomplishes these results because of its antipyretic, antiphlogistic and analgestic action, which is unattended with depressant effects. And most important to observe, it causes no drug habit, and does not like Opium wreck the patient's mind while he is made oblivious of pain. Febrisol Liquid relieves the pain by reducing the inflation which is the cause thereof. It sets the circulation at rest by calming the nerve centres in the medulla and through its influence upon the vaso-motor nerves it opens the flood gates of the skin producing gentle perspiration and thus cools the blood.

Experience amply shows that there is no more safe, efficient, thoroughly reliable remedy in such conditions than Febrisol Liquid (Tilden's).

I have used more or less of the two elegant preparations, Peacock's Bromides and Chionia during the last two or three years and must say with very satisfactory results.

Mitchell, S. D. B. A. Bobb, M. D.

Miscellaneous.

SUPREME COURT OF NORTH CAROLINA:
August term, 1904.

State vs. Andrew C. Biggs, appellant.
C. M. Stedman and E. J. Justice for appellant.
Atty. Gen. for State.

Clark, C. J.—The defendant is indicted on a charge that he "did unlawfully and wilfully begin, engage in and continue the practice of medicine and surgery and the branches thereof for fee or reward, without having obtained a license so to do from the Board of Medical Examiners of the State of North Carolina." Upon the facts found the Court was of opinion that the defendant was guilty. The defendant appealed from the judgement imposed.

The special verdict found that the defendant advertised himself as a "Non-medical physician;" that he held himself out to the public to cure disease by a "system of drugless healing, and treats patients by said system without medicine, claiming not to cure by faith;" that he davertises to cure by natural methods, without medicine or surgery. The only acts that he is found by the verdict to have performed are that "he administers message, baths and physical culture, manipulates the muscles, bones, spine and Solar Plexus and kneads the muscles with the fingers of the hand. He writes no prescriptions as to diet, but he advises his patients what to eat and what not to eat; all the above treatment is administered to the exclusion of drugs." It was admitted that the defendant was not licensed by the State Medical Board, and claims to exemption under the provisions of the act of 1903, as a nurse, a midwife, nor as one curing by paryer, and then there is the important finding that "the defendant charges a fee or reward for his services" and has treated patients by the above treatment and received payment therefor since the passage of Chapter 697 Laws 1903, "To Define the Practice of Medicine and Surgery."

Section 3124 of the Code requires that every person who applies for license to practice "medicine or surgery or any of the branches thereof" shall stand an examination in "anatomy, physiology, surgery, pathology, melical hygiene, chemistry, pharmacy, materia medica, therapeutics, obstetrics and the practice of medicine." There was added by Chapter 117 Laws 1885 the following provision: "And any person who shall begin the practice of medicine or surgery in this State for fee or reward, after the passage of this act, without first having obtained a license from said Board of Examiners (meaning the State Board of Medical Examiners) shall not be intitled to sue for or recover before any court any medical bill for services rendered in the practice of medicine or surgery or any of the branches thereof, but shall also be guilty of a misdemeanor and upon conviction thereof shall be fined not less than $25,00 nor more than one hundred dollars or imprisonment at the discretion of the Court for each and every offense.

The constitutionality of this last Act has been vigorously assailed in the Courts on the ground that every one had an "inalienable right to life, liberty and the persuit of happiness" as our great Declaration phrases it, and that by that guarantee it is the right of every one to earn his livelihood by persuing any calling or vocation not unlawful, and that to place his liberty to do so within the power of a committe chosen by those already persuing any given calling would be to infringe upon section 7 Article 1 of our State Constitution, which forbids exclusive privileges and omoluments to any set of men, and section 31 of the same article which prohibits "monoplies and perpetuities." Of late years there has been added the argument that such an act is also obnoxious to the Fourteenth Amendment to the Constitution of the United States, which prohibits any State "to deny to any person the equal protection of the law."

There was undeniably great force in the argument on that side. The law making power slowly in this State and others, yielded to the view that it could or should pass such an act. In 1858'9 Chapter 258 it first incorporated "The State Medical Society" and authorized the above examination and prohibited any one to practice medicine or surgery or prescribe for the cure of diseases for fee or reward without such license, but was careful to add a proviso that no one who should practice without such license should be guilty of a misdemeanor, the only inhibition being that if he practiced on credit he could not recover his fees in the courts. The law remained thus till the above recited act, passed in 1885 and which was made prospective. The Constitutionality of this last statute was fully considered, and after a most able argument against it by the counsel was sustained by this court, but not without great hesitation, and upon the ground solely that the Act was "an exercise of the police power for the protection of the public against incompetents and imposters, and in no sense the creation of a monoply or special privileges." If the object of the Act could be construed as intended to give special and exclusive privileges to a special body of men, and not solely and in truth

for the protection of the public, the legislature was prohibited by the Constitution from enacting it nor could the legislature restrict the cure of the body to the practice of "medicine and surgery" or establish any State system of healing. State v. MacKnight, 131 N. C. 723.

After that decision, moderation and wisdom would have suggested that the matter rest. Those who wish to be treated by practitioners of medicine and surgery had the guarantee that such practitioners had been duly examined and found competent by a Board of gentlemen eminent in that high and honorable profession and those who had faith in treatment by methods not included in the "practice of medicine and Surgery" as usually understood, had reserved to them the right to practice their faith and be treated, as they choose, by those who openly and avowedly did not use either surgery or drugs in the treatment of diseases. The courts had declared that they possessed this right and that the legislature could not, under the Constitution, restrict all healing to any one school of thought or practice. What is "the practice of medicine and surgery" is as well understood, and its limits, as the practice of dentistry. The courts have also held that of the many schools of "medicine and surgery" the legislature could not prescribe that any one was orthodox and the others heterodox but that those professing the different systems—"allopathic" "homeopathic," "Thompsonian" and the like—should be examined upon a course, such as is taught in the best colleges of that school of practice, but that it is not essential that a member of each, or of any special school, should be upon the Board of Examiners.

At the last session of the General Assembly, the following Act (1903, Ch. 697) was passed amendatory of section 3122 of the Code: "For the purpose of this Act the expression 'practice of medicine or surgery' shall be construed to mean the management for fee or reward of any case of disease, physical or mental, real or imaginary, with or without drugs, surgical operation, surgical or mechanical appliances, or by any other method whatsoever; provided that this shall not apply to midwives nor to nurses; provided further that applicants not belonging to the regular school of medicine shall not be required to stand an examination except upon the branches taught in their regular colleges, to wit, the osteopaths shall be examined only upon Descriptive Anatomy, General Chemistry, Histology, Physiology, Urinalysis, and Toxicology, Hygiene, Regional Anatomy, Pathology, Neurology, Surgery, Applied Anatomy, Bacteriology, Gynecology, Obstetrics and Physical Diagnosis; provided this act shall not apply to any person who ministers to or cures the sick or suffering by prayer to Almighty God, without the use of drug or material means."

Chief Justice Pearson in McAden v. Jenkins 64 N. C. 801 noted, as of common knowledge, that railroad charters are drafted by "promoters" and hence should be construed most strongly against the guarantees and the interest of the public. The same construction can be fairly applied to this Act amendatory of the chapter of this corporation, in whose supposed interests it was evidently drafted, and not solely in the interest of the public. Under the guise of "construction" of those well understood terms, the "practice of medicine and surgery" the Act essays to change the meaning of words to be found in every dictionary, and says that the expression "practice of medicine and surgery shall be construed to mean the management 'for fee or reward' of any case of disease, physical or mental, real or imaginary, with or *without drugs*, surgical operation, surgical or mechanical appliances, or *by any other method whatsoever*." That is, the practice of surgery and medicine shall mean practice without surgery or medicine if a fee is charged. If no fee is charged, then the words "surgery and medicine" drop back to their usual and ordinary meaning, as by long usage known and accustomed. Where then is the protection to the public, if such treatment is valid when done without fee or reward? Yet, unless the Act confers, and it is intended solely to confer, protection upon the public, it is invalid. The legislature can not forbid one man to practice a calling or profession for the benefit or profit of another.

Again, the Act means more than the draftman probably intended, for it says, "Any case of disease, physical or mental, real or imaginary." Is not a disease of the eye physical, and is not a disease of the ear, or of the teeth, or a headache, or a corn, physical? Then every dentist and aurist and oculist is indictable unless he has also a license from the State Medical Society as an M. D., as is also every corn doctor who relieves aching feet and every peripatetic of stentorian lungs on the Court House square who banishes headache, real or imaginary, by rubbing his hands over some credulous brow. He too, must be an M. D. Then there is the closing expression, forbidding treatment "for fee or reward" by other than an M. D., "by any other method whatsoever." This would take in all the old women and the herb doctors, who without pretending to be professional nurses, relieve much human suffering, "real or im-

aginary" for a small compensation. Then it is forbidden to relieve a case of suffering "physical or mental" by any method unless one is an M. D. It is not even admissible to "minister to a mind diseased" in any method or even dissipate an attack of the "blues" without that label duly certified. Is not this creating a monoply and the worst of monopolies, that disease shall not be cured or alleviated, whether real or imaginary, mental or physical, though without medicine or surgery, "if for a fee," unless one has undergone an examination on "Anatomy, Physiology, Surgery, Pathology, Medical Hygiene, Chemistry, Pharmacy, Materia Medica, Therapeutics, Obstetrics and the Practice of Medicine." Such examination is eminently proper for one who holds himself out as an M. D., and those who wish to employ an M. D., should certainly have the guarantee that is given by his license that the M. D., is competent. But how about those who are too poor, or too ignorant or too perverse to wish that kind of treatment? Is it requisite that the man who treats a diseased ear shall really be competent in Obstetrics, or that it is a penalty to treat a disease of the eye unless the operator understands chemistry, or that it is indictable in this State to remove corns, or to plug teeth without full knowledge of materia medica, or to banish headache by the application of the hands without having passed a satisfactory examination on Anatomy, or to apply a fomentation without being able to "pass up" on Therapeutics, or to sell a little herb tea for the stomachache without being scientifically versed in Pathology and Physiology? The Act is too sweeping. Besides the legislature could no more enact that the "Practice of Medicine and Surgery" shall mean "practice without medicine and surgery," than it could provide that "two and two makes five" because it cannot change a physical fact. And when it forbade all treatment of all diseases, mental or physical, without surgery or medicine, or by any other method, for fee or reward, except by an M. D., it attempted to confer a monopoly on that method of treatment and this is forbidden by the Constitution.

The practice of medicine and surgery in the usual and ordinary meaning of that term is of the highest antiquity and dignity. In the Code of Hammarabi, King of Babylon, fifteen centuries older than the Code of Moses and which was engraved on a column of black diosite was but recently dug up at Sura in ancient Elam there are found (Sec's 215 225) regulations of the medical profession, fixing a scale of fees and penalties for malpractice. Physicians are mentioned in both the old and new Testament. Jeremiah asks "Is there no balm in Gilead —Is there no physician there?" The public has a right to know that those holding themselves out as members of that ancient and honorable profession are competent and duly licensed as such. The legislature can exert its police power to that end because it is a profession whose practice requires the highest skill and learning. But there are methods of treatment which do not require much skill and learning, if any. Patients have a right to use such methods if they wish and the attempt to require an examination of the character above recited for the application of such treatment is not warranted by any legitimate exercise of police power. The effect would be to prohibit to those who wish it, those cheap and simple remedies, and deprive those who practice them, of their humble gains, by either giving a monoply of such remedies to those who have the title M. D., or prohibiting the use of such remedies altogether —neither of which results the legislature could have contemplated and both of which are forbidden by the provisions for the Constitution above cited.

(1) Administering massage baths and physical culture.

(2) Manipulating muscles, bones, spine and solar plexus.

(3) Kneading the muscles with the fingers of the hand.

(4) Advising his patients what to eat and what not to eat.

And all this without prescriptions, without any drugs or surgery. These acts, by the terms of the statute, are harmless and not indictable "unless done for fee or reward." There is nothing in this treatment that calls for an exercise of the police power by way of an examination by a learned board in obstetrics, therapeutics, materia medica and the other things, a knowledge of which is so properly required of one who would serve the public faithfully and honorably as a Doctor of Medicine.

It is not only in the scope of the police power for the State to regulate the "practice of medicine and surgery" and to throw around the public any reasonable protection against unfit members of that honorable profession and provide against malpractice, but the General Assembly can prohibit any pretended art of healing which is calculated to deceive and injure the public. It is also within its power to protect the public against the ignorant and vicious who profess knowledge and skill in any art or profession of healing, in which technical knowledge and learning are required to safely and properly practice it. But it is not found here that the defendant is deceiving and injuring the public, or is ignorant

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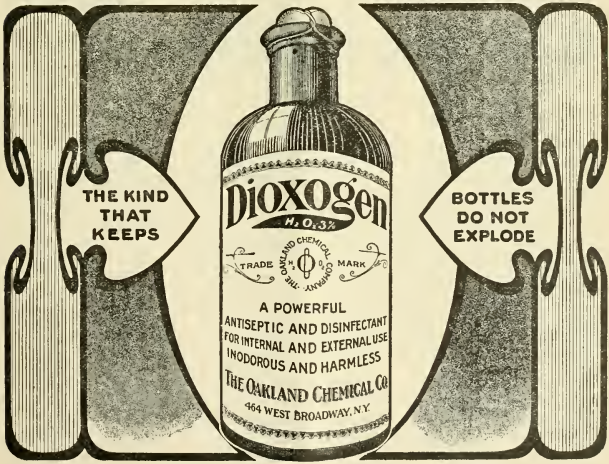
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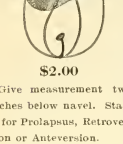

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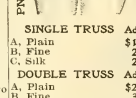

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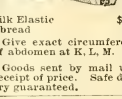

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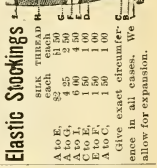

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or incompetent, to the detriment of the public, in the applications of the methods which he uses. It may be that if he were not there, some of the patients might call in an M. D., but that is due possibly to the ignorance or perversity of the patients, who may prefer the defendant's methods to the scale of fees. The police power does not extend to such cases.

The law is thus stated in Lawton v. Steele, 152 U. S. pp. 137, 138: "The legislature may not under the guise of protecting the public interests arbitrarily interfere with private business, or impose unusual or unnecessary restrictions upon lawful occupations. In other words its determination of what is a proper exercise of its police power is not final or conclusive, but is subject to the supervision of the Courts." After citing cases it is said on page 138: "In all those cases the acts were held to be invalid as involving an unnecessary invasion of the rights of property, and a practical inhibition of certain occupations harmless in themselves and which might be carried on without detriment to the public interests." See also State v. Pendergrass, 106 N. C. 667; Ohio v. Gardner, 58 Ohio St. 599; 41 L. R. A. 689.

The defendant is not charged nor shown

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to be an osteopath, and disclaims being one. His learned counsel contends that the Act of 1903, Ch. 697 is further unconstitutional because of the following (quoted from his brief): "There is not provision for the examination of any but allopaths and osteopaths. It provides that all persons, except midwives, nurses and those who profess to heal by prayer, who minister to the sick for fee or reward 'or by any other method whatsoever' shall be construed to be practicing medicine or surgery, and then follows this language; 'provided further that applicants not belonging to the regular school of medicine shall not be required to stand an examination except upon the branches taught in their regular colleges, to-wit, the osteopaths shall be examined only upon Descriptive Anatomy, General Chemistry, Histology, Physiology, Urinalysis and Toxicology, Hygiene, Regional Anatomy, Pathology, Neurology, Surgery, Applied Anatomy, Bacteriology. Gynecology, Obsetrics and Physical Diagnosis.' The osteopath is required to stand an examination in surgery and every other branch that those belonging to the regular school of medicine are required to be examined in, except pharmacy, materia medica, therapeutics and the practice of medicine, and, in addition, he is required to stand an examination in branches that the regular medical student is not required to be examined on, as follows, 'Histology, Urinalysis and Toxicology, Regional Anatomy, Neurology, Bacteriology, Gynecology and Physical Diagnosis,' but it is remarkable that he is not required to pass examinations in the branches that his profession recognizes and teaches to be of special importance in the practice of Osteopathy, such as Principles of Osteopathy, Osteopathic Manipulations and Osteopathic Diagnosis."

As his client is not an osteopath, we are not called upon in this case to pass upon the alleged discrimination against osteopaths in the prescribed course of study. But if it be objected that we have only shown that the defendant's practice did not call for the examination required, as above set out, for an allopath, it may be as well to say that the acts of which he was convicted of doing "for a fee," to-wit, using massage baths, physical culture, manipulating muscles, bone, spine and solar plexus, and advising his patients as to diet—could he done as safety to the public, so far as shown, without an examination on "Histology, Urinalysis and Toxicology, Bacteriology, Neurology and Gynecology, which are some of the things added to the course of the aforesaid Act, for the comfort and convenience of those wishing to obtain license to practice osteopathy, and of course only to protect the public against incompetants in that line of practice. It is possible, however, that an expert knowledge of gynecology is not essential in administering baths and there is room for serious doubt whether bacteriology and toxicology are connected with message in any way.

The term "practice of medicine and surgery" embraces probably the larger and certainly by far the most profitable part of the "treatment of diseases," but it is not co-extensive with the later term and cannot be made so, unless, "surgery and medicine" are adopted as the State system of treatment, a monoply, and all other methods are indictable. On the other hand, the State Medical Society would hardly wish to broaden out so as to take in all methods of treatment of disease, for this would be to take in practitioners and practices which they would not wish to recognize. All the law so far has done or can do is to require that those practicing on the sick with knife and drugs shall be examined and found competent by those "of like faith and order." Doctor Oliver Wendell Holmes, in an address before the Medical Society in Massachusetts said: "If the whole Materia Medica was sunk to the bottom of the sea it would be all the better for mankind and all the worse for the fishes." An eminent medical authority in this State has said that out of twenty-four serious cases of disease, three could not be cured by the best remedies, three others might be benefitted, and the rest would get well anyway. Stronger statements could be cited from the most eminent medical authorities the world has known. Medicine is experimental, not an exact science. All the law can do is to regulate and safeguard the use of powerful and dangerous remedies, like the knife and drugs, but it cannot forbid dispensing with them. When the Master was told that other than his followers were casting out devils and curing diseases, he said, "Forbid them not."

Upon the special verdict the defendant should be adjudged not guilty.

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Some New Topical Agents in the Treatment of Tuberculosis in the Larynx.

By Solomon Solis Cohen, M. D., Philadelphia, Pa.

I have ventured to bring before the Association accounts of recent observations and cases yet incomplete, in the hope that some of the fellows might be induced to test in their practice certain agents and methods, which have seemed to me to be of use in the treatment of tuberculosis of the larynx, and that thus a more extended experience, and one, moreover, without personal bias, might be available for deciding upon the value of the treatment proposed. That many cases of tuberculosis of the larynx go steadily from bad to worse, in spite of our best efforts, is an experience unfortunately too common. On the other hand, some of us at least, have seen cases in which there was no doubt of the correctness of the diagnosis of tuberculosis of the larynx, and in which healing has taken place surprisingly and unexpectedly.

During the past year I have, however, seen good results, alike in infiltrative, ulcerative, and vegetative cases, from the use of the treatment here mentioned, namely: Formaldehyde with Protonuclein insufflation.

Beginning with the weakest solution of formaldehyde, the strength of the application is increased as rapidly as possible by successive increments up to 10 per cent. of the commercial preparation, which equals 4 per cent. of pure formaldehyde. This is the strongest solution I have found necessary to employ. The indications for increasing the percentage of active drug are the ability of the patient to bear the applications, and the absence of inflammatory reaction.

After applications of formaldehyde, Protonuclein has been insufflated. The applications are made twice weekly. In the intervals the larynx is cleansed with a spray of hydrogen-dioxide solution, followed by insufflation of Protonuclein, once or twice daily.

Case 1.—September 13, 1895, I was consulted by Mr. G., a merchant, aged 27 years. His voice was evidently produced with great difficulty, was frequently lost altogether during attempted conversation, and was of a peculiarly hollow quality. He stated that hoarseness and difficulty of speech had been constantly increasing since January 1st. Previous to that there had been no trouble. Cough, however, had persisted for five or six years, and in January, 1890, he had been sent to the West Indies, where he remained for four months, and returned, as he thought, well. On his outward trip he had a hemorrhage aboard the steamer, and had had hemorrhages at intervals since, which he had attributed to "heart disease," and, indeed, physical examination of the chest showed his heart to be greatly hypertrophied, there being regurgitation both at the aortic and mital orifices. There was no history of lues. Laryngoscopic examination showed both vocal bands swollen and reddened. An irregularly lobated mass, probably as large as a large bean, projected from the meso-arytænoid fold, preventing closure of the vocal bands. The epiglottis and arytæno epiglottidean folds were intensely red in color, but normal in contour. Physical examination of the thorax revealed the signs of a large active cavity in the middle of the right lung, and in the left lung considerable consolidation of both upper and lower lobes, with a small active cavity in the former. The expectoration was profuse, and the sputum contained tubercle bacilli in great numbers. The local treatment consisted, first, of interdiction of attempts at the production of the voice, conversation to be carried on in a labial whisper. Sprays of a weak solution of hydrogen-dioxide, followed by insufflations of Protonuclein daily, and applications of formaldehyde, gradually increased from two to ten per cent. of the commercial (forty per cent.) solution, were made to the arytænoid mass twice a week. By the 9th of November the vocal bands had become normal in appearance, and the mass had been reduced in size fully two-thirds, when injudicious and unusual exertion on the part of the patient precipitated a hemorrhage, followed by a pneumonitic attack, in consequence of which he was confined to the house, and intermission of active local treatment necessitated until about the 15th of December. The spray and insufflations were, however, resumed soon after the acute fever had subsided, and applications of guaiacol were made once or twice to ulcerations, which made their appearance at the base of the left arytænoid cartilage. After December 15th, and until February 3, full treatment was resumed and continued as previously, with the effect of securing almost entire disappearance of the vegetation by the time above noted, when the patient sailed for the West Indies. He remained in Barbadoes during March and April, the spray and insufflations being continued by his wife, but no applications of formaldehyde being made. On his return, a few weeks ago (May 2d), no trace of the original growth could be seen, but a new growth about the size of a large split pea had developed above the right vocal band at the

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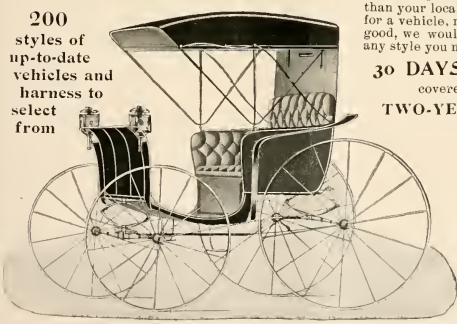

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base of the right arytænoid cartilage. The vocal bands, which had been of normal color at the time of his leaving Philadelphia, were quite red. Treatment was resumed and has been continued as at first. The redness of the vocal bands soon disappeared, and the new growth is becoming much reduced in size. The general health of patient, which had been steadily running down after his hemorrhage, has been much improved by his trip. Whether or not the new lesion will prove as amenable to local treatment as the former one, I cannot say. The patient is still compelled to whisper, as the production of voice is difficult, owing to mechanical interference by the new growth with the action of the local bands, in addition to which there seems to be thyreo-arytænoid paresis.

CASE 2.—A man, aged about 26 years, seen at the Philadelphia Hospital, had been attacked with tuberculosis of the larynx during an ordinary slow tuberculosis of the lungs. The epiglottis was characteristically thickened, and had begun to ulcerate, two deep fissures being present on the laryngeal face. The vocal bands were thickened and red, and ulcerations were present at the base of the left arytænoid cartilage. Under treatment similar to that described above the ulceration healed, the vocal bands became normal in appearance, the voice improved greatly, and the epiglottis had been much reduced in size at the time the patient removed himself from treatment.—New York Medical Journal.

Case of Tuberculosis.

By Hunter McGuire, M.D., LL. D.

Miss P., of Albingdon, Va., was brought to my private hospital, November 9th, 1895. She had a hacking cough, enlargement of the glands of the neck, and consolidation of the apex of one lung. I diagnosed phthisis pulmonalis, prescribed constitutional remedies, and advised her being taken to some more suitable climate for the winter.

Before she could make arrangements to leave the hospital she had a severe chill, followed by high fever and a very sore throat. In a few days she developed a typical case of noma, or cancrum oris. The disease attacked her left cheek, and when the slough separated, an opening was left as large as a silver dollar, exposing the teeth and rendering feeding difficult. There was high fever, typhoidal delirium, and great prostration.

The wound was cauterized and disinfected, and heroic measures used to feed and stimulate the patient, but the symptoms grew worse, and little hope of recovery was given to the relatives.

Finally, as a last resort, I began the use of Protonuclein, giving the tablets internally and dusting the powder on the wound. An immediate improvement followed, and after a long and trying convalescence the patient was able to return home.

A year later she returned to the hospital to have a plastic operation done to lessen the deformity of the scar, and when she first entered my office, I scarcely recognized the healthy, vigorous woman as my former tuberculous patient. The enlarged cervical glands had disappeared, her lungs were clear, her cough was gone. She had been cured of tuberculosis. I have no explanation to offer for the result, but trust the clinical fact may prove of interest to the pathologist.

Professor of Clinical Surgery, University College of Medicine, Richmond, Va.

Dietetic and Medicinal Treatment of Nephritis.

The work of the Kidneys is to eliminate certain ingredients from the blood which, if retained, would be injurious, and the health of the Kidneys depends a great deal upon the normal condition and the proper work of the liver. There is no doubt but what lithemia and gout are responsible for a large number of cases of nephritis. As rich foods taken in large quantities as well as the use of alcoholic beverages are known to cause nephritic diseases, it is natural that the proper diet is of the utmost importance. Abstinence from alcohol, tea, coffee and cocoa, as well as sweets and acids rarely fail to produce prompt and beneficial results, especially in the acute stages, but many cases of nephritis, gout and lithemia are not cured by only cutting off detrimental food. Therefore we have to aid the treatment by the judicious use of drugs, especially of such which will regulate the excretion of the normal amount of urine which is highly essential in all nephritic disturbances. The value of diuretics in nephritis has been established beyond a doubt, but of just as great importance is the employment of proper cholagogues, and it is hardly necessary to mention the eminent service which hydragogues and saline cathartics will render in acute as well as in chronic cases especially when dropsy has set in. A salme combining all the qualities of a reliable hydragogue, cholagogue and diuretic, such as Kutnow's Improved Effervescent Powder cannot often enough be mentioned in the treatment of nephritic diseases, about which the Medical Press and Circular writes: "The valuable therapeutical properties of the European Mineral Springs and of the salts obtained therefrom have long since been fully established.

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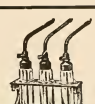

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Patients who have cultivated a taste for elegant pharmaceutical preparations will doubtless be glad to avail themselves of Kutnow's Improved Effervescent Powder, a slightly effervescent and distinctly palatable preparation of the salts prepared directly from the mineral waters. Our analysis proved the presence in due proportions of those salts which have made the natural waters famous, and we have no doubt that this pleasant form of ingestions will become very popular with those who are unable to take the waters or the salts. This, like the parent waters, is serviceable in cases of Rheumatism, Gcut and cronic affections of the Kidneys."

"Kugloids" in Grippe, Catarrhal Pharyngitis, Bronchitis, Etc.

The following trio of internal remedial agents may be used with confidence:

℞ Creosoti Benzoatis min. 1
Eucalyptoli Benzoatis min. 1
Quinia Glycero-phosph. gr. ½
Misce fiat sol. sec. artem.
(Dispense in capsule.)

These capsules are, for brevity, prescribed under the name of "Kugloids," so-called after Dr. Cugler of Paris, author of the formula.

Benzoate of creosote is a tasteless, odorless, colorless liquid, non-irritating in the stomach, through which it passes unchanged into the intestines, where it is acted upon by the biliary and pancreatic secretions and absorbed. It has no irritating after effects on the kidney, which is always to be feared when creosote or guaiacol are taken internally.

Pure Eucalyptol, is an optically inactive, colorless liquid of strong, aromatic, camphoraceous odor, boiling at 176 deg. C., having a sp. gr. of 0.930.

It is eliminated by the lungs, skin and kidneys when taken internally and in the Kugloids, the slight irritant properties of Eucalyptol are attenuated by its combination with benzoic acid.

Glycero-phosphate of Quinine occurs as white, needle-like crystals, soluble in 750 parts of water.

Its physiologic action enhances both organic and inorganic metabolism, chiefly favoring the assimilation of the albuminoids and the excretion of nitrogen.

It stimulates the leucocytes, so that they are fit for active phagocytosis, and through the nervous system, increases the assimilation of the phosphates from the food.

A remarkable feature in this salt of glycero-phosphoric acid, is that the quine still acts as a febrifuge, and can be pushed to the limit without producing tinnitus aurium.

We now have the group complete and can formulate it as follows:

1. *Quinine Glycero-phosphate*, Nerve Tonic; Protoplasmic Regenerator; Antipyretic; General Tonic.

2. *Creosote Benzoate*, Stimulating Expectorant; Diuretic; Antiseptic; Anti-Catarrhal.

3. *Eucalyptol Benzoate*, Antiseptic; Antispasmotic; Increases mucous secretions.

Having thus studied seriatim each of the components of Kugloids, let us look at the pathologic conditions in which they are to be used. As every pathologic lesion must be preceded by a change in function, we find that in the inflammatory diseases of the respiratory tact, they are preceded by a hyperaemia, soon followed by a mucous exudate, which is later augmented by leucocytes and red blood corpuscles which, unless thrown off by coughing, form a nidus for the development of germs.

The process, up to this point, is limited to the mucous and submucous membrane of the bronchii and bronchiolas, and if not arrested, proceeds by contiguity of structure to the surrounding tissues (the parenchyma.) The inflammation now becomes more intense, and at the same time, pressure from the accumulated products of inflammation so press upon the blood vessels that anaemia takes the place of hyperaemia and degenerative changes occur, such as hepatization, yellow atrophy, caseation, etc.

Besides this, the toxines which are formed by the bacteria that gain entrance into this excellent culture media, affect profoundly the nervous system and also exhaust the valiant white blood corpuscles in their strenuous efforts for supremacy.

This general picture covers the entire field of pathogenic changes from a simple acute Bronchitis, through chronic Bronchitis and Pneumonia, up to Pulmonary Phthisis, the different forms of Bronchitis depending only on the severity and length of attack; while the Pneumonias and Pathisis, are due to their respective specific germs.

Tuberculosis of the lungs is probably the most exhausting of all diseases, and the most difficult to arrest, because the baccillus which forms the toxic ptomaines that saps the patient's vitality, is surrounded by an impregnable wall of connective tissue that shuts off all approach from the blood current. However, it is not only the tubercle bacillus that is at work undermining the constitution, but the staphylococus and streptococcus, which linger more superficially in the mucous membrane and around the walls of cavities, producing a septic condition that we call the mixed infection and which is accountable for untoward results and neurasthenic conditions.

DR. GEORGE W. PRESSLY,

CHARLOTTE, N. C.

PRACTICE LIMITED TO SURGERY.

St. Peter's Hospital.

DR. E. R. RUSSELL,

221 South Tryon St., Charlotte, N. C.
Practice limited to diseases of the Eye, Ear, Nose and Throat.
Hours: 8:30 a.m. to 12 m. and 3 to 5 p. m.
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Practice limited to Diseases of the Skin, Genito-Urinary and Rectal Diseases. Office No. 12 S. Tryon street, over First National Bank. Office hours, 8 to 10; afternoon, 2 to 4, 6 to 7:30 Sundays, 8 to 10 p. m.

DOCTORS WHO DESIRE RESULTS in Carcinoma, Gangrene, Varicose Ulcers, Eczema, Erysipelas, Pruritus Vulvæ, Vaginal Catarrh, Specific or non-Specific Vaginitis, Vaginal and Cervical Erosions, Carcinoma Uteri and in all cases requiring dry or moist dressings, use "**Phenadul.**"

The "**Phenadul**" **Tablets** excel in diseases of Mucous Membranes: Throat, Stomach, Bowels, Vagina, Cervix, Uterus and Rectum and Bladder. They are very effective in Catarrhal cases, Fermentative Dyspepsia, Diarrhœa, Typhoid Fever, Ulcerations, Enuresis in both adults and children, etc.

A prominent Boston Surgeon has endorsed "**Phenadul**" as follows: From the many Powders introduced for surgical uses, I have been unable to select any one which seemed to me to fully meet the requirements for general surgical cases. The powder furnished me by your Company, known as "**Phenadul,**" has supplied that want for general work. It has served me well in all classes in which a power is required, and, also, been as serviceable when employed in the form of ointment or suppository. It seems to possess local anæsthetic properties and is spoken of by patients as being very soothing in its effect. I have used it freely in my work at the Union General Hospital as well as in private practice, and it has served me so well that I can recommend it to all others.—Frank L. Burt.

Samples of "PHENADUL" on Request. Price, $1.00
"**Phenadul**" **Tablets $1.00.**
Made only by

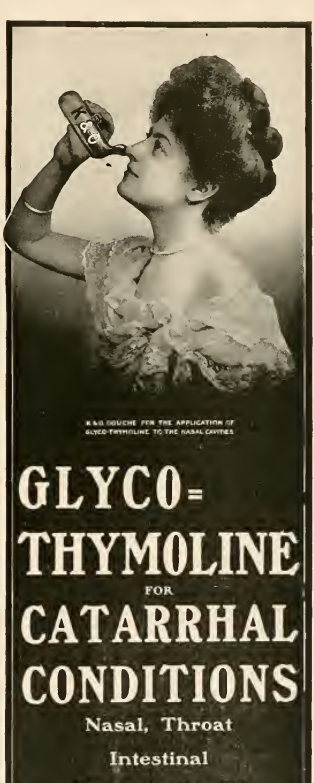
THE ANDREW CHEMICAL CO., Boston, Mass.

Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to MEYER BROS. DRUG CO., St. Louis, Mo., for gratis supplied samples and literature of Sander's Eucalyptols. MEYER BROS. DRUG CO., St. Louis, Mo., Sole Agents.

Sanmetto Incomparable in Inflammatory Conditions of the Urinary Tract.

I have used Sanmetto in the various inflammatory conditions of the urinary tract —especially in acute cystitis and prostatitis —with good results. Other preparations on the market that are said to be the same thing are not to be compared with Sanmetto. H. E. Phares, M. D.

Shelbyville, Ind.



Imitation or Substitution.

A physician in speaking of Glyco-Thymoline imitations, remarked that they reminded him of Oleomargarine—"which might be used when it was impossible to get butter."

"Imitations are at best poor substitutes and I never use them. I want the results that invariably follow the use of Glyco-Thymoline—genuine."

Influenza, or "Grippe," is a specific, epidemic, and contagious disease of rapid diffusibility, the cause of which is generally admitted to be small coco bacillus discovered by Pfeiffer in 1892.

This disease is prone to a mixed infection with the streptococcus and staphyloccocus, thus unloading large quantities of toxines in the system.

The first and most important feature then, after the invasion, is the germ, and this calls for an antiseptic; the pyrexia, night sweats, nervous symptoms and pain are due to the accumulation of the products of inflammation and toxines. These are first prevented from further elaboration by arresting the process of inflammation and killing the germ that produces them; then such material as remains must be filtered out from the blood through the bowels and kidneys, by means of purges and diuretics. The accumulations in the air passages will be removed reflexly by coughing, aided by Huxley's Antiseptic Pastilles and stimulating expectorants, and the irritated mucous surface must be soothed and gently stimulated to produce their natural secretious, so that an harmonious interchange between the air and blood can take place in the alveoli. After all these things have been accomplished, the nervous system must be toned up, the broken down tissues rebuilt, and the exhausted leucocytes rejuvenated.

In "Kugloids" we have a remedy combining all the factors necessary for such results, and clinical testimony upholds this theoretical exposition most satisfactorily.

In Grippe, it relieves the pains promptly, reduces the fever, takes away the general feeling of lassitude, and tones up the nervous system.

Resolution in Bronchitis takes place much sooner than usual, and in Pneumonia, the temperature can be reduced 4 deg., in twenty four hours; the areas of dullness and bronchial breathing rapidly diminished, and free and easy expectoration established phenomenally early.

The dose varies according to the severity of the disease. In Grippe one Kugloid every hour can be administered, in Bronchitis six to eight daily, while in Pneumonia and Phthisis ten to twelve can be given in the twenty-four hours.

Betul-Ol Versus Salicylate of Methyl.

By. Gus. Foullon, New York.

While it would be absurd to contest the therapeutic value of the synthetical salicylate of methyl, yet it cannot be denied that actual experiment with the natural product derived from the "betula lenta" gives much better physiologic results, although even this may cause slight irritation of the skin.

Synthetic methyl salicylate has a variable specific gravity (1.183 to 1.190), whereas methyl salicylate as true betula lenta oil, is 1.180 at 15 deg. C.

The artificial product of commerce always contains toxic homologous esters, owing to the presence of impurities in the salicylic acid from which it is made (which in turn is derived synthetically from carbolic acid), and while it may not be actually impossible to purify such commercial methyl salicylate of these poisonous constituents, the cost of so doing, would be much greater than the harmless product of the sweet birch (*betula lenta*).

Natural methyl salicylate occurs in the volatile oils of wintergreen and sweet birch, both of which differ in certain respects from the synthetic product obtained by the condensation of methyl alcohol and salicylic acid. True oil of wintergreen contains about 90 per cent. of the methyl ester of salicylic acid, together with small quantities of a paraffin (m. p. 65 5 deg. C.), an aldehyde, an alcohol, and an ester which upon saponification, breaks up into the same alcohol and an acid.

The oil from *betula lenta* is more than 99 per cent. of methyl salicylate, together with traces of the same paraffin and an ester.

It is noteworthy that methyl salicylate does not pre-exist as such in the plant, but is liberated by the action of a ferment (betulase) upon a glucoside (gaultherin), the result of the hydrolysis which takes place being represented as follows:

$$C_{14}H_{18}O_8 + H_2O = C_6H_{12}O_6 + C_6H_4 \begin{cases} OH \\ COOCH_3 \end{cases}$$

Dr. Van Romburgh of the botanical garden at Buitenzorg, Java, has recently furnished additional proof of the wide distribution of methyl salicylate in the vegetable world. Of 900 various plants examined for volatile constituents, 160 or 18 per cent. rendered a distillate containing more or less of this ester.

The absorption of the salicylate of methyl by the skin, was first indicated by the French physicians Lannois and Linossier. The ester is saponified in the blood, and the salicylic acid is eliminated in the urine in the form of sodium salicylate.

Betul-ol is a compound methyl-oleo-salicylate containing menthol. It has many advantages over artificial and natural methyl salicylate in treating the symptom pain arising from rheumatism, neuralgia, sciatica or in fact from any cause. It is very rapidly absorbed, affording almost instant relief without reddening the skin or producing irritation.

Its anodyne and antiseptic action takes

Vidal. Pharm. Journal, Lond. 1897, page 459.

Listerine

A Non-toxic, Non-irritant, Non-escharotic Antiseptic.

Absolutely Safe, Agreeable and Convenient

Listerine is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgically clean—aseptic—all parts of the human body, whether by spray, injection, irrigation, atomization, or simple local application.

Listerine is a swift and sure destroyer of infusorial life; it prevents the various fermentations, preserves animal tissues and inhibits the activity, growth and motion of low forms of vegetable life: hence Listerine may be relied upon to destroy the activity of the living particles which constitute contagion whenever brought into intimate contact therewith.

For diseases of the uric acid diathesis: **Lambert's Lithiated Hydrangea**

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis.

Descriptive literature may be had upon application to the Manufacturers,

LAMBERT PHARMACAL CO., St. Louis, U. S. A.

Be assured of genuine Listerine by purchasing an original Package.

place, moreover, even if the Betul-ol is not applied over the seat of the pain, because this salicylic compound, when taken up through the circulation, on coming in contact with any lesion, finds itself in the presence of an excess of carbonic acid which liberates salicylic acid at the spot. Hence direct antiseptic results are produced in the tissues, followed by relief from pain. Effete cell tissue and pus are sterilized by the free salicylic acid and its application is followed by slight diuresis and a marked increase of all solid constituents of the urine, especially urea and uric acid.

Thus we understand why the salicylates are *antiseptic*, *eliminative*, *cholagoguic*, *antithermic* and *analgesic*, and so useful in rheumatism (acute and chronic), rheumatoid arthritis, muscular rheumatism, lumbago, neuralgia, sciatica, and even in gout and the fulgurating pains of locomotor ataxia.

The counter irritant, penetrating power and local anesthetic properties of Betul-ol are indicated in all arthritic, neuralgic and myalgic affections, including arthritis from any cause, but particularly those affecting the superficial nerves, and any form of myalgiæ, which have always been counted among the most stubborn affections. It has been applied in the treatment of endometritis and its complications salpingitis, etc., and especially in gonorrhœal cervical endometritis (apply by painting the cervix), it also relieves pruritus and lichen simple. Betul-ol in fact is applicable wherever we look for local anti-rheumatic, anti-podagraic and anti-septic results.

Betul-ol yields on analysis, the same percentage of salicylic acid as salicylate of soda; it contains no morphine or cocaine, but these may be added in prescribing if desired; it is soluble in all proportions of ether, alcohol, chloroform or oils, and may be used either pure or in combination as a liniment.

Betul-ol is for *external* use only; but colchi-sal capsules *internally*, are essential to the treatment, *where there is a mixed rheumatic and gouty tendency.*

Quite small amounts of Betul-ol suffice to give relief, as each minim absorbed produces an equivalent of one grain of nascent salicylic acid.

To facilitate the absorption of Betul-ol, the affected surface should first be washed with soap and water to dispose of the excess of fat normally found in the skin.

Apply with the camel-hair brush if the affected parts be very tender; gentle friction, however, is recommended where it can be borne. To insure proper absorption after application, the part should be covered with a soft impermeable tissue (gelatino-silk tissue is the best) and afterwards enveloped in cotton wool to maintain the temperature.

Remarks on Glyco-Thymoline.

W. R. D. Blackwood, M. D., Philadelphia, Pa.

For many years past this preparation has been one of my mainstays in diseases of the mucous membranes, and it has held its place despite the trials of many other agents warranted to supplant it by the advocates who decried Glyco-Thymoline when I spoke of its virtues. Space is now getting too valuable to waste with long detailed descriptions of separate cases, and anyhow I never did write in that manner—I think general remarks about agents is the better way, and we need this more than stories of symptoms and temperatures, with daily alterations. No class of maladies is more troublesome than disorders of the mucous membranes, and none more difficult to eradicate thoroughly, and we have been put to our wit's end many times for remedial agents in such cases. The local treatment of catarrhs is frequently disappointing, and none more so than that prevalent one—post-nasal catarrh. Unless we can get an alterative condition established little good is done, and nothing has been of greater service to me than Glyco-Thymoline, locally and internally, in several hundreds of long-standing and severe cases of this intractable and common affliction. I have come to regard this preparation as a standard and almost routine remedy; I seldom care for a post-nasal trouble without prescribing it at the onset, and if I don't it is not long before it comes into use. It is just alkaline enough; just so as to the dialysis—(the action locally with exactly the right amount of fluid excretion through the diseased membrane, just enough astringent without drying the parts; and just the right thing in the direct line of reparative work)—it sets up tissue building soon after the membrane gets somewhere near its right shape. Many things are employed in catarrh, but I firmly believe that if I was confined to one agent only, that would be Glyco-Thymoline. For years I used the so-called antiseptic tablets of boric acid, salt, glycerin, etc., and with good results, but for a long time past this is thrown aside and the Glyco-Thymoline takes its place. I use it in about half-strength with a Bermingham douche, and from twice to four times daily. With this, in bad cases, I give it internally, adding to it, or giving separately, mercuric bichloride, and if done separately the menstrum is compound syrup of stillingia. In presumed syphilitic persons I always do this.

In gastritis, chronic enteritis, vaginitis, gonorrhœa, and in recurring attacks of

Antiphlogistine

PROPERLY APPLIED, IS UNQUESTIONABLY THE STRONGEST THERAPEUTIC FORCE IN SUCCESSFULLY WAGING THE MUCH-TALKED-OF

CRUSADE
AGAINST
PNEUMONIA

ANTIPHLOGISTINE IS A SCIENTIFIC PREPARATION HAVING A DEFINITE PHYSIOLOGICAL ACTION, AND THAT ITS REMEDIAL VALUE MAY BE FULLY REALIZED, IT SHOULD BE USED WITH CAREFUL ATTENTION TO DETAIL.

ANTIPHLOGISTINE

APPLIED WARM AND THICK TO THE ENTIRE THORACIC WALLS, FRONT, SIDES AND BACK, AND COVERED WITH A CHEESECLOTH COTTON-LINED JACKET

PRODUCES IMMEDIATE RESULTS.

BY INDUCTION OF CUTANEOUS HYPERÆMIA (FLUSHING THE SUPERFICIAL CAPILLARIES), IT BLEEDS BUT SAVES THE BLOOD. THUS, ALL THE DISTRESSING SYMPTOMS ARE AMELIORATED. THE OVER-WORKED HEART, THE CONGESTION, THE PAIN, THE RAPID AND DIFFICULT BREATHING ARE PROMPTLY RELIEVED. THE PULSE IMPROVES, THE TEMPERATURE DECLINES, AND REFRESHING REST AND SLEEP ARE INVITED.

THE PATIENT RECEIVES ANTIPHLOGISTINE IN PERFECT CONDITION WHEN THE PHYSICIAN PRESCRIBES ORIGINAL PACKAGES.

MARKETED ONLY IN FOUR SIZES—
SMALL, MEDIUM, LARGE AND HOSPITAL—
NEVER IN BULK.

The Denver Chemical M'f'g. Co.

DENVER LONDON NEW YORK

what too many physicians deem appendicitis, I use this agent freely, and always with good results. As a local application to foul ulcers and especially to hemorrhoids I think this preparation is very good. In the nasty leg ulcers which now and then defy all remedies Glyco-Thymoline does wonders—it can't do harm any time, and I am almost persuaded to give it in all instances. In bronchitis and asthma it is fine; in spasmodic croup it fills the bill nicely; it does well in venereal disorders locally, and in balanitis it stops the trouble at once. MEDICAL SUMMARY,

December, 1903.

Adrenalin in the Treatment of the Cardiac Toxemia of Pneumonia.

The writer, Henry L. Elsner, M. D., of Syracuse, N. Y. (New York Medical Journal, Jan. 2, 1904), directs attention to the appalling mortality of pneumonia due to the resulting cardiac toxemia. The prime factor in this disease is a toxemia with obstruction in the pulmonary circuit, leading to cardiac asthenia. Marked changes occur in the right half of the heart, with far-reaching degenerative changes in the muscle, heart-clots, and vasomotor paralysis.

Three remedies meet the indications presented by the circulatory changes due to paralysis of the vasomotor centers, the dilated condition of the arteries and the weakened heart. These are strychnine, digitalis and suprarenal extract or Adrenalin, its active principle. Adrenalin acts on the heart and blood vessels favorably; it does not act on the vasomotor center. Hence, it may be used to assist strychnine. When the vasomotor center is exhausted and blood pressure study proves the inefficiency of strychnine, Adrenalin may still be administered, and, in some cases which seem unpromising, when combined with the method of stimulation about to be suggested, we may carry the patient beyond the critical period to a safe recovery. Suprarenal extract, or Adrenalin, has seemed to the author to act as a needed food in all infections where there is danger of myocardial degeneration. He reports a case of pneumonia, in a woman, the mother of five children, in whom it had been impossible to raise a continually lowering blood pressure with strychnine. The systolic blood pressure was almost immediately raised by the repeated administration at short intervals of fifteen minims of a one to one thousand solution of Adrenalin hypodermatically, and the patient was saved.

An Important Point.

One important point in the treatment of all these conditions is the exhibition of aconitine to full physiological effect. Congestion always exists to a greater or less extent and this is relieved by nothing so well as aconitine. The compound granule of aconitine, veratrine and digitalin may be used in some cases—one, three times a day—but generally the exhibition of gr. 1-134 of aconitine every four hours will be the best treatment. After a few days, congestion being relieved, it is well to give a course of the "Triple Arsenates with Nuclein" for their tonic and reconstructive effects.

Dr. Colin Campbell, South Park, Eng., L. C. R. P., M. C. R. S., writes in the Medical Press and Circular, London, Eng., Oct. 7, 1903.

Pleurisy.—Dr. B., was under my care last winter suffering from a pulmonary cavity. He had had previously two or three intercurrent attacks of pleurisy, which I again found present on Dec. 7th, 1902, accompanied by severe pain over the cavity, and a temperature of 103 deg. His previous attacks had occurred at his home, where careful poulticing was practicable, but in apartments this was unsatisfactory, and so it occurred to me to try Antiphlogistine.

The material was warmed and "trowelled" on for many inches around the pleuritic centre, then covered with non-absorbent lint and Jaconet.

The result was remarkable; the pain disappeared within an hour, and the high temperature within two days.

Many advantages over poulticing were noticed by the patient; facility of application, no unendurable heat, rapid relief from pain, its adhesiveness rendered movement possible without tight bandaging or the alternative sudden influx of cold air which follows the separation of a poultice from the skin.

Iodipin and its Various Uses.

Dr. S. Ajello reports on iodipin and its therapeutic uses. One case is especially noteworthy. The patient was a drinker who had had typhoid fever in youth, and in late years had been several times in hospitals, suffering from nephritis and arteriosclerosis. When the author saw him, the man showed indications of insanity. Attacks of angina pectoris, dyspnea, and distress came on daily, and headaches were continuous. It was a case of arteriosclerosis of the small vessels, the coronaries, the renal and cerebral arteries. Potassium iodide had no good effect. Thereupon iodipin was given in daily injections of 10 Cc. of the 25-per-cent. solution, and was continued for one month. After fifteen injections the attacks of angina did not recur, the headaches were relieved, the blood-

Instantaneous

is the relief from the acute stinging pain of inflammations and eczematous eruptions about the muco-cutaneous margins when **Resinol Ointment** is applied. And a permanent cure is effected by this remedy with greater facility in all skin affections where a local application is indicated than by any other method. As a dressing for Burns, Carbuncles, etc., there is nothing approaches it.

Resinol Soap is the great adjunct to the Ointment, and renders the necessary bathing of the parts an aid to the cure, where the ordinary application of water and other soaps usually increases the trouble.

Resinol Ointment and Resinol Soap

Are genuine comforts to physician and patient alike.

SEND FOR SAMPLES AND TRY THEM.

RESINOL CHEMICAL COMPANY,

BALTIMORE, MD.

GREAT BRITAIN BRANCH:
97 NEW OXFORD STREET, LONDON, W. C.

CHAS. MARKELL & CO.,
AGENTS FOR AUSTRALASIA, SYDNEY, N. S. W.

Soluble Iodine

(BURNHAM'S)

INCOMPLETE ABSORPTION caused by *precipitation* and the *presence of alkaline salts* and *acids* has heretofore prevented the *realization* of the full therapeutic action of iodine.

SOLUBLE IODINE (Burnham's) is *rapidly absorbed* and *all utilized* by the system, and it is free from alkaline salts and acids, and is soluble in the gastric juices.

By its use the complete therapeutic action of iodine, or the iodides is attained, without any toxic effects.

One drop of this preparation is equivalent in therapeutic value to fifteen grains of Potassium Iodide.

The utility of Soluble Iodine (Burnham's) and its advantages over all forms in which the drug has hitherto been administered have been *thoroughly demonstrated.*

Sample sent on application.

BURNHAM'S SOLUBLE IODINE CO.,
BOSTON, MASSACHUSETTS.

Founded on Clinical Experience

In *Medical News*, August 1, 1903, Dr. J. Leffingwell Hatch, of New York (formerly lecturer on Bacteriology and demonstrator of Morbid Anatomy in the University of Pennsylvania), writes of Thiocol: "My own experience with Thiocol has been quite extensive and varied. * * * In tuberculosis the night-sweats were stopped almost from the first; the fever was markedly reduced; expectoration was made easier and less purulent, while the cough became less persistent and annoying."

Syr. Thiocol Comp.

— Merck —

affords the valuable therapeutic properties of Thiocol (anti-tubercular), Dionin (cough sedative and expectorant), and Ammon. hypophos. (reconstructive).

Other forms of Thiocol (Potassium guaiacol-sulphonate Roche) are: Powder; 5-grn. Tablets; and Syr. Thiocol Merck, 6 grn. to teaspoonful.

Clinical Reports to Physicians

MERCK & CO.
University Place New York

pressure fell, the urine showed less albumen, and the patient gained in weight. This case corroborates the assertions of Taussig concerning iodipin and its vascular action in arteriosclerosis, aneurism, lead colic, etc.

Three cases of bronchial asthma were also successfully treated with iodipin injections. One patient had previously taken potassium iodide, but the condition became worse owing to the resulting pharyngeal and nasal catarrh. Then iodipin was given, at first 10 Cc. daily by injection, later 20 Cc. every two days; in all 25 injections. These were absolutely painless, while injections of Lugol's solution had been very painful in the same man. The improvement after iodipin was striking, the attacks abating in eight days, and at the end of treatment the patient was almost cured. Another course several months later may result in permanent cure.

A case of coxitis in a boy of seven years was also much benefitted by 40 iodipin injections of 3 Cc. each, after iodides, tonics, extension, etc., had failed. An obstinate case of sciatica was cured by 10 injections of 10 Cc. of iodipin 25-per-cent.; while another case of severe intercostal neuralgia was cured after 15 injections. The specific action of iodipin in tertiary syphilitic lesions was proved several times. Good effects were also seen in a case of paralysis agitans. All these were very severe cases which had resisted all previous efforts. Much greater success will be obtained in milder cases. An important feature is the freedom from by-effects, especially from iodism. Moreover, most patients gain in weight under iodipin while the alkaline iodides always cause loss of weight and cachexia.

Ravasini has used iodipin in late syphilis, giving a tablespoonful of the 10-per-cent. solution three times daily, and at the same time injecting the 25-per-cent. solution daily or every second day. The remedy was well borne by the mouth, and the injections were not painful. No iodism was noted, though the same patients had not been able to tolerate potassium iodide. The remedy gave full therapeutic result in all cases of syphilitic affections.

H. Winternitz, who first obtained iodipin in 1897, now reports in general on its action. Inunction is ineffectual, as no absorption takes place; rectal injection is also insufficient. Taken internally, iodipin passes the stomach unabsorbed, to be split up by the bile and other secretions and absorbed like all fats. It circulates in the blood and iodine appears in the urine after several minutes. After 10 Gm. of iodipin, iodine is eliminated in the urine for from four to six days; after potassium iodide, for only two or three days. Iodipin is well utilized when taken by mouth, the greater part exerting a therapeutic effect. When given beneath the skin the elimination of iodine in the urine is very slow. Animal experiments have shown that iodipin is deposited in bone-marrow, liver, blood, etc. Small quantities of inorganic iodine-compounds are also found at these depots. This, perhaps, explains the good effect in neuralgia. Intoxication does not take place, because only small amounts of iodine circulate at one time. Through oxidation iodipin liberates iodine, and the latter becomes an alkaline iodide which is eliminated in the urine. This protracted elimination makes iodipin useful in bronchial asthma, arteriosclerosis, and lead-colic. The feces carry off very little iodine. Iodipin often exercises a good effect on general nutrition, especially in marked dyscrasia.

Michael Peano found iodopin valuable in pulmonary emphysema with adenoid vegetations. The latter are completely absorbed. For children the remedy is useful in protracted pneumonia, in scrofula, lymphatism, and tuberculosis.

Wolfson speaks warmly of iodipin injections and reports an illustrative case. The good effect is undoubtedly due to the slow absorption and therefore protracted action of iodine.

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While the immense value of the sanitorium and other forms of open-air treatment for consumption is becoming more fully recognized, it must be remembered that, as yet, these methods are available only for a comparatively small proportion of the total number of cases of the disease. We have not yet arrived at the time when municipal sanatoria will be provided for the poorer class of consumptives inhabiting their respective boroughs, but there are indications that this is the direction in which the therapeutic progress in pulmonary phthisis will ultimately be made. In the meantime, it is obvious that the immense majority of tuberculous patients must be treated in their own homes, under circumstances which must often militate considerably against restoration of the lung-tissue. It is little to be wondered at, sometimes, that such patients, seeing the impossibility of carrying out the directions of the physician with regard to the hygienic arrangement of the bed-room, the necessity for suitable and sufficient nourishment, and other details in the management of their cases, are apt to lose heart in themselves and, what is equally bad, confidence in their medical attendant, and relax the very precautions they had at first promised faithfully to observe. How is it possible to treat tuberculosis efficiently under conditions of extreme poverty, gross overcrowding, or bad sanitary conditions? The problem, indeed, seems hard to solve, and yet a good deal may be accomplished by the dissemination of knowledge respecting the need for the disinfection of sputa, properly lighted and ventilated rooms, and strict cleanliness. Professor William Osler has recently called attention to this important aspect of the tuberculosis question, and has laid stress upon three essential points in the treatment of the consumptive at home. In the first place, the necessity for an earlier recognition of the disease is urged, and, provided that the patient will only seek medical advice before definite pulmonary symptoms have supervened, it should not be difficult after a thorough systematic physical examination to enlist the intelligence of the patient himself in his condition and invite his cooperation in battling with the tendency to the disease, and in overcoming the first onslaught of the tubercle bacillus. When physical signs have appeared, Professor Osler pleads for a more "masterful management" of the early cases. It is here that real practical difficulties arise, for, however willing and anxious the patient may be to subdue the affection, neither he nor his friends may show much disposition to upset the arrangements of the home by providing freer ventilation than that to which they were formerly accustomed. Once the patient's confidence is gained—and this is a most important point—the hope of the recovery will, in the majority of cases, prove a sufficient stimulus by which he may overcome objections and other temporary obstacles in the way of the successful carrying out of the plan of treatment, Another *sin qua non* in the home-cure of consumption is persistence, without which any system of therapeutics will fail. In only too many instances is it seen that the good effect wrought by treatment is undone at night by sleeping in stuffy and overcrowded rooms. Intermittence, whether nightly or at longer intervals, must be rigorously guarded against, and this more especially if any signs of improvement are manifest. If due regard be paid to these essentials in the home-treatment of tuberculosis, the lot of the consumptive who, from lack of accommodation or means, is deprived of the advantages of sanatorium life should be rendered more endurable and his outlook somewhat brighter.—Medical Press and Circular.

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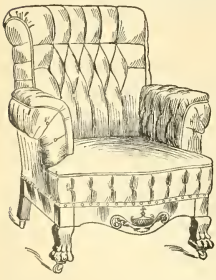

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CHARLOTTE, N. C.

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The Treatment of Gastric Ulcer.*

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For many years it has been known that approximately 5% of the human race at some period of their lives suffer from gastric ulcer; that 10% of these cases die from perforation or hemorrhage; that the lives of 15% are materially shortened and the health, happiness and usefulness of the remaining 75% more or less impaired.

It is equally true, that until very recently, our knowledge of the causative and resultant pathology of gastric ulcer was limited to dead-house findings; our methods of diagnosis to a study of symptoms, and an application of laboratory tests, and our treatments to medicinal and dietetic measures.

All candid experienced men, who thoughtfully accept these statements, must be impressed that a large majority of these victims of gastric ulcer, lived and suffered, or perhaps died, with the real cause of their distress unrecognized, untreated, or mistreated; and that our treatments at best were indirect and uncertain, based upon an obscure pathology and a doubtful etiology, and restricted by the prevailing exaggerated ideas of the dangers of all surgery done in the upper half of the abdomen.

I take it therefore that if we are ever to evolve any hopeful plan for reducing the mortality and misery that has attended gastric ulcer in the past, such a plan must include:

First. An earlier and more positive diagnosis.

Second. A clearer comprehension of the causative and resultant pathology.

Third. An adoption of the rule, that all inflammatory or necrotic lesions starting in the mucosa and tending to extend to and include the peritoneum, should be regarded as surgical affections.

Fourth. Due consideration of the anatomic relations and physiologic functions of the stomach.

Exploratory Incision as a Means of Diagnosis.

The first step toward the rational treatment of any disease is a positive diagnosis. From post-mortem statistics we learn that in a considerable proportion of bodies, presenting post-mortem evidence of gastric ulcer, the disease had not been even suspected in life, and in most instances a positive diagnosis had not been made. These oversights and doubts will continue to embarrass the medical attendant and bring disaster to the patient, until the former acquires the habit of suspecting every obscure chronic disease of the stomach of being gastric ulcer, unless the subjective and objective symptoms and the application of modern laboratory methods furnish absolute proof to the contrary, and until he is willing to recommend an exploratory incision in all cases where any serious or significant symptoms are present and the ordinary means of diagnosis are ineffectual.

We certainly are not justified in subjecting our patient to the danger of sudden death, from perforation or hemorrhage, or the risk of cancer developing or even to the distress that belongs to most gastric ulcers, when so safe a procedure as an exploratory incision is at our command and will remove our doubts and enable us to take timely precautionary measures if necessary; other means of diagnosis should not be undervalued, but until our colleagues, the internal medicine men and the laboratory workers envolve something more definite and conclusive as a diagnostic test than they have yet produced, we will often find ourselves compelled to resort to the exploratory operation.

Causative and Resultant Pathology.

The excessive frequency of gastric ulcer as compared with ulcers in other parts of the body, admits of but one explanation; viz., there must exist certain local conditions that render the stomach especially susceptible to ulceration. I am convinced that these local conditions frequently do exist and that they will become apparent to those surgeons who take into account the well known digestive action of the gastric juice upon devitalized or partially devitalized tissue and recall that the stomach is almost invariably brought into the most intimate relation with every infection that invades any part of the peritoneal cavity, by means of the richest possible vascular connection, the omentum.

Any one who has done much gall bladder, appendiceal or tubal work will testify to the frequency of these omental attachments, connecting as they do the stomach directly with these infections and often in a way to drag on portions of the stomach. Thus the carrying of infected emboli, the immobilization of certain parts, and the local circulatory disturbances all tend to favor

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local degenerative changes; and the presence of emboli, or any disturbance of the blood or nerve supply or any interference with the normal mobility of any portion of the stomach are sufficient and probable factors in the production of a *locus minoris resistentia* upon which the digestive or corroding powers of the gastric juice may act and produce ulceration. These facts if accepted and utilized will often aid us in our diagnosis, and should not infrequently influence our treatment.

The scope of this paper will not permit our dwelling upon this question of etiology but at some future time, I hope to bring before this society further evidence, both clinical and experimental, showing the intimate causative relationship that exists between inflammatory lesions in any part of the abdominal cavity, and gastric ulcer. It is probable too that gastroptosis or any loss of muscular tone that permits sagging of portions of the stomach walls, render those dependant parts more susceptible to the digestive effects of the gastric juice and favor ulceration. We cannot on this occasion take time to review the course and various terminations of gastric ulcer further than to recall to your mind the causative relation that gastric ulcer bears to cancer, perforation, hemorrhage, subphrenic abscess, hourglass contraction, pyloric obstruction and the involvement of nearby organs and tissues. Suffice it to say that Fenwick estimates from post-mortem statistics that adhesions occur in 44% of all cases of chronic ulcers, involving one or more of the following organs or tissues named in the order of frequency; viz, pancreas, liver, colon, mesentery, spleen, omentum, diaphragm and abdominal wall.

At the present time, this resultant pathology is usually the first recognized indication for treatment, but it is to be hoped that in the near future earlier diagnoses and timely preventive measures will do away with much of this resultant pathology, and we will be able to eliminate a large part of the misery and mortality that inevitably belong to perforative hemorrhagic and malignant cases.

Gastric Ulcer is Essentially a Surgical Affection.

In making this statement I do not undervalue the usefulness of rest, dietetic and possibly medicinal measures in those cases, where the ulcers tend to heal spontaneously, but it is irrational to suppose that any but surgical measures can exereise any controlling influence over any progressive acute or chronic ulceration, or can remove the existing cause, or combat the various sequelæ of such ulceration, as hemorrhage, scar tissue, perforation, cancer, etc.

Both surgeons and patients have in the past been restrained by an exaggerated fear of operative procedures in the upper half of the abdomen, and this excessive apprehension coupled with the diagnostic doubts that prevailed in the ante-exploratory days have doubtless served to prevent the surgical diseases of the stomach receiving rational treatment as early as they otherwise would. But since it has been demonstrated that the stomach is as safely accessible to surgery as the organs of the lower half of the abdomen there must be very few exceptions to the rule quoted above; viz, *all inflammatory or necrotic processes starting in the mucosa and tending to extend to, include or penetrate the peritoneum, should be regarded as surgical affections.*

I do not understand that the adoption of this rule implies that we should operate upon all cases of gastric ulcer the instant a diagnosis is made, but I do believe that those who view this morbid condition as a surgical pathology and are able to draw a mental picture of its possible or probable course, termination and complications, will be the best judges of how long to trust to natures reparative powers and how soon surgical intervention is demanded.

The surgery of gastric ulcer is still very young and as yet no hard and fast rules should be adopted for deciding exactly when, or precisely how we should attack this pathology with the knife. There are some conclusions however, that seem confirmed by experience that I believe should influence our practice.

When in the consulting room or at the bedside, we are confronted by a patient that is evidently suffering from any obscure serious chronic disease of the stomach, we should be quick to suspect gastric ulcer and apply the proper tests to confirm or dispel our suspicions. If the mildness of the symptoms permit, we may during our period of doubt, even employ some conservative rest treatment for the stomach; but if this prove ineffectual, and we are still in doubt, or the symptoms are at all urgent or significant, it is our duty to advise an exploratory incision at once for diagnostic purpose.

In perforation of the stomach into the general peritoneal cavity, there can be no difference of opinion. A prompt operation, thorough cleansing of the abdominal cavity and perfect repair of the stomach perforation are imperative. When a perforation results in the formation of a perfectly walled off cavity, we should certainly open and drain, but I believe that repair

of such perforations may often be temporarily postponed.

In gastric ulcer, attended by serious hemorrhage, we should remember that 4% of all cases die of hemorrhage, and that excision of the ulcer, or opening the stomach and directly attempting to control the hemorrhage are procedures that (judging by past experience) do not promise to reduce this mortality. We have however a more promising procedure that can be speedily executed with but little shock, which I believe should be employed as early as possible in all these cases; viz, Gastroenterostomy. So far as I can learn, Moynihan, was the first to advocate and employ this means of favoring Nature's efforts to control gastric hemorrhage, and at the same time encourage cicatrization of the existing ulcer or ulcers.

In the absence of symptoms of perforation or hemorrhage we may plan and execute any necessary procedures more deliberately. Where possible and practicable the primary local cause should be removed. In a considerable number of open ulcers I believe this alone may effect a cicatrization, and in all (where such causes are discoverable and removable) I think the correction of the initial causative pathology is an additional safe-guard against recurrence.

Hence in studying the history we should take into thoughtful consideration any account of previous abdominal inflamation as appendicitis cholangitis, pyosalpinx, etc. Evidence of a previous local or general peritonitis, especially if treated non-surgically, indicates the situation of a past or perhaps present infection, doubtless connected with the disease of the stomach through the omentum or by peritonial adhesions, and constituting the probable primary cause of the gastric ulcer.

I could cite many cases that to my mind illustrate this causative relationship, cases which in the past have been explained on the unproven, "nervous reflex theory."

The removal of the primary cause will not usually suffice where a large open ulcer or a cicatrized ulcer is situated near the pylorus, and pyloric obstruction is threatened or already exists. Such cases, and they constitute the majority of those presented for operation, require rest for the ulcer and a sufficient outlet for the stomach contents. A pretty careful consideration of the various methods proposed with these objects in view, leads me to prefer as a rule, a posterior gastro-jejunostomy using sutures without the aid of mechanical appliances.

Dilatation of the pyloric orifice with the finger through an opening in the stomach seems illogical and crude, and I believe usually proves ineffectual and unsafe.

Pylorectomy is, I am sure, more difficult and dangerous than gastro-jejunostomy, and even if successful, accomplishes no more.

Some form of pyloroplasty, including the Finney operation may be found applicable to exceptional cases, but they all involve the risk and uncertainties of surgery done in scar tissue, moreover they are more difficult to execute, require more time in their performance and do not usually insure the same rest to the ulcer, that an opening in the most dependent part of the stomach does.

Excision of the ulcer, whether cicatrixed or open, would at first seem to be the ideal surgical procedure, but in actual practice we rarely find cases where it meets the indications so completely and so safely as the other measures referred to, and the unsatisfactory results and mortality attending excisions up to the present time, are apparently dependent upon conditions that no refinement of the procedure is likely to meet and overcome. The performance of a posterio gastro-jejunostomy with sutures can be accomplished easily, speedily and effectually by any one who will take the time to familiarize himself with each step of the operation, and acquire a reasonable degree of dexterity, by practice upon animals or the cadaver. The least possible exposure, a good sized opening in the most dependent part of the stomach, drawn through the meso colon and connected with a similar opening in the jejunum, at about 5 inches from its attachment, the use of Doyens's clamps and silk sutures as described by Moynihan, are, I think the salient points of the procedure best adapted to most cases.

The conclusions suggested by the foregoing considerations may be briefly summarized as follows:

First—Post-mortem statistics, clinical experience and recent operating room observations all tend to confirm the belief that neither the frequency nor the grave importance of gastric ulcer is fully appreciated by the profession generally, and the majority of cases are not recognized as such in life.

Second—An earlier and more positive diagnosis means greater alertness in our observation and interpretation of symptoms, and more frequent exploratory operations.

Third—In the history of every benign or malignant ulceration situated in a safely accessible region, there is always a time when the pathology can be corrected or favorably modified by appropriate mechanical means.

Fourth—Up to the present time the recognized indications for operative procedures in gastric ulcer have been the symptoms produced by the remote resultant pathology; as hemorrhage, perforation, pyloric obstruc-

tion, cancer, etc., but our aim in the future should be to make an earlier diagnosis and by the timely application of a rational treatment prevent the occurrence of these later and more serious manifestations of ulcer.

Fifth—Taking into stricter account the local etiologic factors will undoubtedly aid us in the prevention, diagnosis and treatment of gastric ulcer.

Sixth—The causative pathology deserves more consideration in the surgical treatment of gastric ulcer than it has yet received.

Seventh—Perforation always demands the promptest surgical interference.

Eighth—Hemorrhage from gastric ulcer is best treated by gastro-jejunostomy.

Ninth—Open or cicatrized ulcers near the pylorus always indicate rest for the parts and a sufficient outlet for the stomach contents.

Tenth—A posterior gastro-jejunostomy with sutures accomplish these objects with the minimum risk and the most satisfactory results and hence should usually be the operation of choice.

Eleventh—Our future advancement in the treatment of gastric ulcer must come from an earlier recognition and better understanding of the antecedent, coexisting and resultant pathologic processes rather than from any further refinement in operative procedures.

"The Identity of Nerve Force and Electricity."

By Jos. Clements, M. D., Kansas City, Mo.

Dr. J. Clement O'Brian, of Scranton, Pa,, read a paper at one of the sessions at the last meeting of The American Medical Association, and which was published in the Journal, of March 7, 1903, on the above topic.

The author of the paper takes a position, as he says, inentical with that of Professors Loeb and Matthews, of the Chicago University, but which they reached by other paths than his. Dr. O'Brian claims priority in the affirmation of the identity of nerve force and electricity by two years.

A week later, in the same Journal, Dr. R. E. Haughton, of Richmond, Ind., claims to have made the "discovery" and announced it more than twenty years ago. Others are yet to be heard from.

If Professor Rudolph Virchow were alive he would claim nothing, and nothing would have induced him to affirm the identity of nerve force and electricity, he knew better; but he could have said, and has left on record, that nearly fifty years ago he traversed the same paths, made the same experiments, used the potassium and sodium salts, got the same results, and made the same "discoveries," reaching all the conclusions that are legitimately demonstrated by these gentlemen to-day.

He says: "I experimented upon a very large number of substances," using "mechanical, chemical and electrical stimulie. I had the good fortune to incidentally stumble upon the fact that the potash and soda salts were such stimulie." Further, he says, "When an excitation takes place in a nerve, we know that a change in its electrical state is connected with it, a change which, from all that is known to us concerning electric excitation in other bodies, must of necessity be referred to a change in the position which the invidual molecules assume to one another. If we conceive the axis-cylinder to be made of electrical molecules, we can easily imagine that every two of these molecules take up an altered position with regard to one another at the moment the stimulus is applied," and much more to a like effect. There is very little of practical value in these later "experiments and discoveries" that was not made known in Virchow's lectures delivered and published in about 1858. See the "Cellular Pathology." The *analogy* of nerve force and electricity, and the adjuvant part the latter may play in organic phenomena, he knew well enough, but that nerve force and electricity were identical, or that electricity were the originating and operating force in the processes he never dreamed. Priority of discovery and announcement may be contested and settled without consideration of the author of the well-nigh greatest work in Medical Science, "Cellular Pathology."

Nerve Force, versus Electricity.

The study of and research in organic phenomena by sections, the method pursued by Loeb and Mathews, as they distinctly state, is convenient, to be sure, but scarcely scientific. The sectional method gives us the "nerve force and electricity" problem.

"What is meant by nerve force?" Is it what we understand by life, organic force? or, is it part, or place, or section of the operative force in organic phenomena? Is there a different kind of force by different sections of life processes, one for nervous, muscular, osmotic and other functions, respectively? There must be some accepted basis of hypothesis or we shall be all at sea in discussion.

The phenomena specific to nerves and the nervous systems have, as their operative and dominant force the same active principle of operation obtaining in all phenomena of the vital domain. If nerve force and electricity are identical then life force and electricity are the same, and the operative prin-

ciple in all life processes is electricity Thus we know where we stand, our platform and premises are clear and so are provided against the weakness of the sectional methods.

Electricity.

The words means nothing within itself. It is a relative term and means what is put into it, which is largely a vague conception. The word force is like it; it, too, is relative, used to express an ideal conception, as vague as the other. Nerve designates not an ideal conception, simply but an entity, an organic structure with a "*living*" substance, basis and agent of nerve phenomena. Nerve is an apparatus in which are enacted certain processes in which nerve force is sovereign. Nerve force is localized and associated with the living matter of the nerve, so that in the absence of this substance, the depository of the nerve force, the nervous phenomena are not on exhibition.

The known facts of nerve constitution and nerve phenomena have no counterpart in simple electric phenomena as represented by the New York or London electric system.

Certainly there is some general gross analogy in the apparatus and also the phenomena. Dr. O'Brian, who may be said to be an electrician, speaks of "Radii of lines and cables, with multiple switches, batteries, relays, transformers, condensers, shunts, duplex and automatic circuits, &c., as going to make up the apparatus, and the the phenomena, "Transmitting force, translating intelligence from point to point by terminal instruments which move, talk, light, print, inhibit, accelerate and regulate, &c., . . . a vast and varied service."

Dr. O'Brian did not add to and mention the persons, the telegraph operators and clerks and messengers, the "Central" and other telephone "Hello Girls," to say nothing of the "plant" itself. In the use of this apparatus in securing the electric and telephonic phenomena the operators are absolutely essential.

Set over against or in comparison with his telephonic or telegraphic system of apparatus, we have the nervous system.

Von Lohennoscki's view is of "variety of excitation, which starting from the cell, perhaps even the nucleus, streams constantly through the axone," &c.

The peradventure of the nucleus is unnecessary. Nothing starts, originates from a cell simply. A "cell" is organic, has structure and is dead. Neither electrie or any other force, nor any action originates in tissue of any kind, but in the protoplasm of the cells. Irritability is a property not of tissues, or cells even, but of the bioplasm or living matter of cells. When the bioplasm, (the structureless matter of the "cell," the "*anatomical* unit," and therefore structural,) "dies," it becomes tissue, it assumes structural or organic form, like the cell "wall," for instance, and in fact does go to make the cell wall; when the irritability of the protoplasm of the cell has gone it no longer responds to stimuli, originates no motion, starts no electric or other force.

The cell nucleus, and in nerve cells the neuron, dexdrite, axone and fibrils, with the ganglion cells and nerve endings, including the "circuits," which Professor Beale, of London, demonstrated years ago, these constitute the apparatus of the nervous system, putting it *en rapport* throughout.

It would seem on comparison of the two systems that that of the nervous organism is the more simple of the two. Where the comparison is in favor of the latter it is in such particulars as cannot be shown in apparatus that can be seen.

For instance, take the four qualities of sensations which Barker specifies, "Cold, warmth, touch, pain.', Dr. O'Brian's effort may explain them away, but does not explain them. The "Morse language, handwriting, print, pictures, light, heat, X-ray," &c., do not answer to the other things by any means. The technical mechanism of the telegraphic system of apparatus may account for the electrical pnenomena in these particulars; but there is no mechanism describable that can do this for the nervous. You are in the region of the psychic, which has no counterpart or analogy in electric systems.

As already admitted, analogy holds good to some extent as to the grosser phases of the phenomena subject to comparison, but it is only gross and general analogy, not identity; there are few instances in the paper where the term identity is used in which any thing more than simple analogy can be substantiated.

But the lack of even analogy, and the incomparableness that may be evidenced are utterly fatal to the identity hypothesis, whoever the author may prove to be. Take the apparatus of the two systems respectively. The telegraphic system of apparatus was constructed and completed throughout. It was built, made in fact piece by piece. Then it was put together, connected, all the paraphanalia being ready and in place, with the operators, &c. Next the electric force, previously generated, was applied, and, if there was no "hitch" in proposed arrangements, the phenomena resulted.

There is no analogy between this and and nervous apparatus, &c. Nerve appatus is not made and put together, it *grows*. No nervous phenomena can be gotten from a *made* apparatus. The nervous system

grows by a process the reverse of the made process. Not piece by piece, but every part simultaneously, a process centrifugal—from within outward. Every particle of the whole nervous apparatus in the process of its development came to its entity and structure under the effective agency of the force which operates the apparatus when brought to completion. Electric force has nothing to do with the apparatus until it is completed, part by part, and connected. Nerve force is imminent and active in the growth and evolution of the nerve apparatus, and by virtue of this association and active agency throughout, the nervous phenomenon is possible.

Begin with the germ and think through the entire system of embryology, and the evolution of nerve apparatus is complete. The force that operates the nerve apparatus and originates and effects the nerve phenomena has been operative from the first. No external, disconnected, independent operators, of a higher class and grade of power, are necessary in nervous as *are* necessary in electrical phenomena, and there is not the shadow of a resemblance or analogy imaginable.

"*Identity of Nerve Force and Electricity.*"

Shades of Morse and all the rest of them! If a flash of electricity could be localized under suitable conditions, and left to itself, and it prepared and produced its telegraphic system—The London one for example—and "run" the business for that city, the *analogy* of nerve force and electricity might be accepted *preparitory* to evidencing the identity of the two, but as things are, the comparison even, is odious.

"If the concept (of identity) be accepted it will advance knowledge," says Dr. O'Brian. Well, accept the impossible thing as an hypothesis, and make practical application of it. Professor James, of Harvard, says the true key in science is, "try it! how does it work?" Professor Matthews speaks of soon being able to construct vegitables and fruits in the laboratory. If these will nourish and sustain animal life, produce seed that will germinate and perpetuate itself; if the eggs so made will hatch chicks; if a dog may be formed by the same *kind* of chemical attraction and repulsion that crystals are formed by, however much more complex the processes may be, and a dog so made, be able to scintilate pleasure, after feeling it, from his eyes, and change his "bark" to suit your own attitude towards him, which he interpects at the time, and a few other things that may reasonably be put in the requisition to establish identity, then the beginnings of a case may be considered as made.

Nerve phenomena cannot be explained or accounted for on the hypothesis of electricity as its originating, efficient force. Analogy, even can only be made out as to the grosser, cruder phenomena, and the hypothesis of "Identity of nerve force and electricity" is utterly without foundation.

The Turkish Bath in Inebriety.

By Charles H. Shepard, M. D., Supt. Columbia Hights Sanitarium, Brooklyn, N. Y.

Inebriety is such a dominating fact, and so fruitful of ruin to thousands in our community, that the study of its inception and the means of its amelioration are forced upon every humanitarian. Prominent, if not the first of its causes, is the financial one, and though philosophers have given us many theories concerning the progress of poverty, it still remains with us and is likely to continue, until in some future time, when society shall deal with it in the broad generous spirit of co-operation. A few years ago an extensive investigation was made in England, under the auspices of Lady Somerset, to ascertain the causes of intemperance, and the conclusion arrived at was that 86 per cent of the whole number were directly traceable to poverty, or financial causes, and the great cause of this 86 per cent was summed up in one word, Competition. In this country, the investigations of Prof. J. J. McCook, showed that the large increase of vagabondage, including tramps, in the years 1874 and 1894, was directly traceable to the panics of 1873 and 1893. Prof. F. S. Nitti, in Economic Journal, says: "The working classes, swayed by instinct, rush eagerly to stimulants, and the workman is inclined toward their use in proportion to the poverty of his food budget."

Intemperance as a cause of poverty has been greatly overworked, both by temperance reformers and by optimistic economists. It is a great cause but it is not at all certain that it is the chief cause. A late Medical Journal says: "When medical men begin to study the cause and cure of poverty and its dreadful effects upon God's creatures, the sick and weary at heart may hope for a millenium. Poverty is a disease of present social conditions, and needs our thought as much as the oncoming of a plague of cholera."

Another cause of the prevalence of inebriety arises from the popular confidence in alcoholic drinks and other narcotics, and this confidence is largely bolstered up by physicians who freely use narcotics. With good reason may the laymen say that if

alcohol is valuable as a medicine, it necessarily must have some virtue as a beverage. The testimony of science is daily refuting this theory, and the misery and disease brought about by its use is constantly emphasizing this truth.

When we realize the great importance of the fact that alcoholism is not only a curable, but a preventable disease, we will not hesitate at any effort to alleviate the condition.

The central idea we wish to present now for your consideration is a means of prevention as well as cure, and this may be stated in a few words as the establishment of a new habit among our people, that is the habit of the Bath. From earliest times bathing has been utilized as an important agency in treating the sick, and its efficacy as a preventive of disease, as well as a remedy, is daily evidenced by unparalelled success when administered by competent hands. New remedies are vaunted for a short or long time, as the case may be, only to fall into quiet desuetude, but baths have ever remained to bless and benefit us by their revivifying influence. There are many varieties of baths, some good and others very good, but the most complete form of all is ordinarily called the Turkish Bath. One who has not studied this subject can scarcely realize the beauty and magnitude, as well as the utility which this form of bathing attained during the Augustan period of the Roman Empire.

Physicians of every school as well as the common sense of mankind agree that cleanliness is the very first requisite to health. If a man's blood is pure, he is not only less liable to disease, but when overtaken by such calamity his recovery is more quickly assured. Disease comes largely from impurity of the blood, and this condition is more promptly relieved by the sweating bath than by any other process.

Can we not teach the people to give more time to rest and recuperation, and less to stimulation? If it is wished to place the inebriate in the condition most favorable for cure, it is important that there should be institutions created for that purpose, with desirable surroundings as well as control over the patient. The model institution is yet to be built, by and under control of the State, wherein the hot-air bath shall hold a pre-eminent position, where narcotics shall be entirely disallowed, for it is not much improvement on inebriety to have one's system saturated and senses blinded by narcotism.

It was not until such self-sacrificing men as Dr. Turner, Dr. Parrish, Dr. Mason, and a few others, made plain to the community the true standing of the inebriate that a right appreciation of such cases was obtained. They showed that this disease was one to be treated on the same general principles as other diseases. Nor should the noble self-sacrificing work of Dr. Day be forgotten. He with others have passed on, but their work remains to us as a guide and a blessing.

Dr. J. Edward Turner was a man born over fifty years ahead of his time, with a natural overflowing sympathy for his fellowman whenever he found him in distress. He gave his life to the work of benefiting the Inebriate. We are constantly acquiring proof of the soundness of his advanced ideas as they are daily put to a practical test. His name heads the list of workers in this field, as he built the first Inebriate Asylum in the world. The corner stone, after an unparalelled amount of work on his part, was laid in the year 1858, at Binghamton, N. Y., and the Institution, which was opened for patients in 1863, was carried on under his administration for three years with great success. Many who were his patients then, have since been useful and honored members of society. The history of that institution after he was forced to leave it, shows how the most beneficent enterprise may be wrecked by bad management.

A prominent feature in Dr. Turner's plan of treatment made it necessary to isolate the patient from the possibility of obtaining alcohol in any form, and to continue this exclusion long enough to make a complete cure, the time varying in different cases according to the condition of the patient. It has been demonstrated over and over again, that unless entire exclusion can be obtained, the treatment requires repetition. There are many reasons why an Institution is essential for the care of inebriety as well as for many other diseases. The appliances for treatment are more complete than can be possible in the individual home, the supervision of the physician is direct and constant, and therefore the attention is more prompt, the surroundings of the patient as to sanitation, diet, etc., can be better regulated, and the uniformity of life, as well as treatment, all conduce to a speedy recovery.

When we have secured an institution, or at least placed the patient out of the reach of narcotics, then comes the restoration of functions of the body to their normal working condition. It is well known that the action of alcohol, as well as narcotics generally, retards the waste of tissue, and some have imagined this to be an advantage, but on the contrary the system, by the free use of these agents, is often loaded, as it were, to the brim, and is ready at any moment to

be discharged like a cannon at the touch of a match, and for this reason they are more dangerous. Notice how many of those who make a free use of them are suddenly stricken down, while apparently in what should be the vigor of life.

The action of so-called stimulants, as well as narcotics, is in reality, a toxic effect, mistakenly supposed to be stimulation, and like other poisons, the system resists them, as they are non-assimilable, and therefore the easiest method, by what may be called vital reaction, is taken to get rid of them. When from excess or weakness this result cannot be accomplished, what may be called a benumbing effect is produced. The longer alcohol remains in the system, the more will this effect be perceived, and this being in the nature of paralysis, must naturally act in a progressive ratio, until the impairment of the functions of the organs is succeeded by an inability to work at all. How would it be possible to go on, day after day, bathing the internal organs with dilute alcohol without its inducing some kind of disease? The elimination of this substance from the body, with its irritating compounds, necessarily falls largely upon the kidneys and skin, and when these are overworked, disturbance quickly follows. Whenever elimination is suspended, insomuch is one or more of the organs engorged. This is particularly disastrous as far as the brain is concerned, for the brain gives way most quickly after the reception of alcohol, and then proper co-ordination is interferred with and we see the gradual approach toward insanity or idiocy; the trembling nerves, and finally utter incompetency.

The more frequent practice is to introduce a drug into the stomach in hopes that its action will be such as to correct this dominating morbid condition. Necessarily this drug or potion must be absorbed, pass into the circulation, and then produce its effect. Were it possible to produce an antidote to the action of alcohol or any other drug, all would rejoice, but more often the result is an additional poison which the system is called upon to throw off through the excretions of the body, if possible, and while the symptoms may be changed, frequently the trouble is increased rather than relieved. The laws of life and health must be strictly obeyed, in spite of any so-called remedy, and we may rest assured, that these laws are as inflexible as the law of gravitation. The time will never come when we may ignore any one of them without paying the full penalty. It will ever be found necessary to give strict attention to the laws of sanitation, nor can we reach the highest standard of health until they are fully understood and obeyed. To go on in the way of transgression, and then expect to be bailed out by some new remedy, is as likely to prove as futile in the future as it has been in the past.

Modern researches show most conclusively that poisons are the largest factors of disease, and such conditions are mostly due to toxic substances generated within the body, either as a result of a failure in the process of oxidation and elimination, or the action of microbes. In acute inflammatory diseases the system is struggling to expel a poison resulting from the growth of microbes. Typhoid fever, scarlet fever, diptheria and cancer are familiar examples. In many chronic conditions the body is filled with poisonous substances, the result of an accumulation of waste matters through defective elimination. When a person is drowned, he dies from retained poisons. Experiments have shown that fatigue causes chemical changes in the blood, resulting in the production of a poison resembling the curare poison. The act of coughing is simply an effort of the nervous system to free the mucous membrane of the throat from obstructive excretion which would be poisonous were it retained.

There is no doubt that putrefactive processes in the intestinal canal play an important part in many diseased conditions. The investigations of Selmi, Brieger, Pasteur, Frankel and Martin, confirm this statement. Bouchard, in his Auto-Intoxication clearly shows that self-poisoning is only prevented by the activity of the excretory organs, chiefly the kidneys and by the watchfulness of the liver, which acts the part of a sentinel to the material brought to it by the portal vein from the alimentary canal. Lauder Brunton has shown that disease depends upon the products of putrefaction and fermentation, rather than upon the direct action of the microbes upon the tissues. Depression of spirits, restlessness, stupor, and melancholia, are among the results from auto-intoxication.

The one great fault with our people is the use of improper foods and drinks that satisfy not, and lead to excessive alimentation. This is followed by a morbid craving. Ignorance supposes that stimulants are the one thing needful to satisfy this morbid craving. We well know that nothing will so speedily quiet the nervous storm as the ever convenient and alluring alcohol, and it does secure for a time rest and repose, but at a fearful expense of nerve strain, after which comes an increased desire for further stimulation. This oft repeated is sufficient to break down the most vigorous constitution. Another serious effect of alcohol is its direct tendency to interfere

with nutrition, and by promoting the growth of cellular tissue to compromise the integrity of the brain tissue where the poison is not readily thrown off, and where it soon destroys, not only its co-ordinating power, but degenerates the brain substance. We know that with the inebriate there is a lack of fine moral sense, and that this condition is far reaching, even affecting the progeny.

The following from a late report of the Belgian Commission is most emphatic. In brief it says:

First. All alcohol is injurious. It is never a tonic or stimulant and never increases the vital powers, but always lowers them.

Second. No form of distilled spirits has any nutritive value.

Third. The injuries of alcohol are always transmitted to the next generation.

It has been shown by the French writers, Duroy, Perrien and Lallemand, that unchanged alcohol has been found in the urine.

It has been proven by Kerr and Strumpell, that the action of alcohol when brought into the system in repeated small doses is nerve destruction.

Demme, of Berne, says: According to the majority of investigators, absorption and assimilation are diminished in rate by small doses of alcohol.

Even alcohol applied to the skin is an irritant, and if persisted in will cause ulceration of the skin.

There is one agency that accomplishes many of the results that different drugs are given to produce, and this without the reactive effect of the drug, and that is always delightful, soothing and quieting to the irritated nerves.

That agent is the hot-air bath.

The moment the bather enters the heated chamber of this bath he is called upon in the gentlest manner to discharge through the skin the refuse of his system. The process of unloading goes on readily and constantly, and the longer he remains in the heat, the more foul material is thrown out. The skin is made active, the blood is perfected in its circulation; at the same time the elements of disease are discarded. Thus when there is alcohol in the system, it can be distinctly noticed in the perspiration. It is apparent to the sense of smell when alcohol is used in even a small degree, and much more so when it is freely used. As the blood is brought to the surface and purified; it goes back to every organ to do better work and perfect every function, by carrying new elements of repair and nutrition, by which all the activities of life are renewed, so that, unless the work of destruction has been carried on too long, repair is set up and a better condition of things organized. For instance if the kidneys have been inflammed, the inflammatory and obstructive particles are eliminated, the former irritation is quieted, there is less determination of blood and nervous energy to the part, through the general equalization, so that a normal action follows, and this vivifying process goes on not alone with the kidneys, but with every organ of the body. Then again, the manipulation which accompanies this treatment, renders more perfect every process, and in a large measure takes the place of exercise.

Nothing could be more simple and perfect in its action. The effect is constitutional or general, and thus quickly overcomes all local obstructions, and the process needs only to be repeated and continued long enough to reach the most depraved cases.

The daily round of human life is a repetition of processes of building up and breaking down. This change is taking place everywhere in the human body, with the result that brain and muscle are finally resolved into carbonic acid, water and ammonia. These changes necessarily take place much more rapidly while under the influence of hot air, and a persons whole system may in this way be promptly and completely renewed.

By no means will this process restore a lost arm or a wasted lung, but by its action many an arm that, by reason of inflammation, was unfitted for service, has recovered its full activity, and many a lung that was not doing half work, has regained its normal action, and the brain that before was cloudy, has been cleared and its pristine activity reinstated.

The theory of the action of the hot-air bath is very simple. Like the action of the sun's rays upon Bunker Hill Monument when the shining upon one side and causing it to lean toward the other, so does this agent act gently and yet powerfully. The primary action of heat, which is the one essential thing of the Turkish Bath, is to relax the tissues of the body and thus invite a more perfect circulation to every part of the system. By this active circulation every sense is quickened, the secretions are more thorough, the excretions more complete, the blood is better supplied with oxygen, the skin assumes its natural roseate complexion indicative of the improved condition, and each and every function, whether it be that of the lungs, liver, spleen or bowels, comes in for its share of the gen-

eral benefit, in a word, it opens every pore of the skin, and hence, results the most perfect sewage of the body.

The secondary action is that resulting from the profuse sweating, where water from the blood and debris, or used up tissue and poison held in solution, are rapidly thrown out of the body. Crystalized salts have been noticed forming on the body of a rheumatic patient while in the hot room of the bath. The quantity of blood in the body is lessened by the free excretion which takes place through the skin and lungs, the body weight is reduced, and the work of the heart in this way lightened, at the same time that its substance is better nourished by the improved quality of the blood supplied to it. The peripheral arterioles of the body too, become dilated and filled with blood, thus affecting a corresponding emptying of the blood vessels of the internal organs. Lastly as a result of the alternate cold and warm douching, the vaso motor energy of the vessels is increased, thus rendering them more capable of resisting any strain that may be thrown upon them. By this it will readily be seen how quickly congestion is broken up, wherever in the body it may be located, and the offending material thrown out through the pores of the skin. Under such conditions absorption and elimination have their most perfect opportunity, and equalization of the circulation crowns the work. It is evident that alcohol is soon eradicated under such favorable conditions, and that torpidity gives place to activity. Furthermore, no living tissue or vitality can be extracted by this process. Nothing is thrown off but what the system is better without. One bath has been known to relieve an intermittent pulse, giving a smooth regular action to the heart, indicating a well balanced circulation. What known drug can do this in the space of half an hour? Another great advantage in favor of this treatment is that there is no poison left in system to work its way out, as is sometimes the case when drugs are administered; on the contrary, the individual is left in a calm and quiet frame of body, which necessarily reacts upon the mind.

It must therefore be evident to every medical mind that the remedy which will stimulate every organ and create in it an action to throw off diseased conditions is the true one to meet such cases. With how much more reason must we expect even better results in the case of Inebriety, where the cause of the disease is eliminated and the advantages of treatment are greater. The mucous surfaces of the inebriate, and in a minor degree those of the moderate drinker, are in a chronic state of inflammation. The effect of the hot air treatment is to reduce that inflammation by purifying the blood, that is, eliminating the destroying elements, and thereby relieving that immoderate craving for stimulants, that only perpetuates and increases the disease, instead of giving relief. A man thoroughly purified by one of these baths, at once realizes that he is a cleaner man and on a higher plane; his senses are more acute, he is in his best condition; he respects himself so much the more, and is less liable to return to his base practices. It is stated as a fact that in no country has inebriety been found co-existent with the Bath. Temperance and cleanliness are its handmaids.

When the inebriate can be kindly taken from society, of which he is unable to fulfill its duties, and be cared for until he is again fitted for its privileges; when the younger generation are taught, as they should be, the disastrous effects of stimulants and narcotics in any form; thanks to the noble work of Mrs. Mary H. Hunt, that is now being carried out in all of the public schools of our country; and when the Turkish bath forms a necessary adjunct to every habitable institution, and is made generally accesssible to the people, a brighter day for mankind will dawn upon the world.

To prevent the development of inebriety we should work for this enlightement of the community, and also for the establishment of Public Turkish Baths. They are democratic Institutions, and will continually tend to the social improvement of the masses, by helping to level up its devotees to a higher grade of life. Through placing the body in its most vigorous and pure condition, the mind at once receives its full share of the stimulation, and the affairs of life will be viewed from a broader and a cleaner standpoint. In that way it will help the building up of the nation. It is by the culture of the physical that we uplift the whole man.

When our people, like the Romans of old, awake to the importance of Public Turkish Baths, and models them after those of early history, the glories of a new era, which is slowly but surely coming, will illumine our daily walk.

The Pyschologic Factor in Medicine and its Application to Nervous Diseases.*

By John Punton, M. D., Kansas City, Mo., Professor Nervous and Mental Diseases University Medical College. Editor Index Lancet, etc.

At the recent meeting of the Missouri Valley Medical Association held at Council Bluffs, Iowa, March 20, 1903. Dr. Punton read a paper with the above title. In introducing the subject the author claimed that with all our boasted advance the above subject was not considered sufficiently important to be embodied in the curriculum of our medical colleges and gave this as the reason for the prevailing indifference exercised by medical men concerning its special value both as a cause as well as a cure for disease. Because of our inability to define satisfactorily to all enquirers of its true essence is another reason assigned for its being ignored by the general practitioner. Inasmuch as we are as yet unable to determine the true nature and character of mind itself renders it difficult to define what the pyschologic factor is, as the two are synonymous but while we may not be able to state its true essence we know what is, even better and that is we know what the mind *will do*, consequently we know what the psychologic factor will do and this is infinitely better than squabbling about what it is. Indeed, all we know about the mind, is its operation all else is theory. If, however, it is necessary to define what the psychological factor is before being entitled to recognition as a scientific therapeutic agent of no mean worth, then we say that it is the influence exerted by one mind upon another or the influence of mind on mind. You will observe that this tells what it is by stating what it does. Now we know that the influence of mind on mind is capable of accomplishing a great deal, both for harm as well as good to the nervous invalid and while we may not be able to satisfactorily explain the intricate occult mechanism by which this is accomplished, yet we are compelled to recognize its powerful effects by results attained in pathologic and therapeutic realms.

Clinical observation and experience teach us that nervous affections at times are not amenable to either pharmacology or surgery, but are powerfully influenced for good or ill by mental and moral means according to the nature and character of their enviroments as well as by the personalities which surround them all, of which have a very important bearing upon results obtained in their treatment. Hence, in considering disease, it is not always a question of drugs, indeed this at times is a very weak staff to lean on. Neither does the case appeal to surgery for relief, indeed surgery does an immense amount of harm when indiscrimately employed, but where these are of no avail then we have still open to us the great realm of psychologic means and masures which in many cases prove the "one thing needful." At times a combination of all these, viz: Drugs, Surgery and Mental Therapeutics are necessary to accomplish the desired result.

The author then takes occasion to emphasize the fact that under certain conditions the mind exerts a powerful influence on the body for good or ill, hence mental processes are often responsible for profound physical changes. Moreover we find the converse proposition equally true, viz: that purely physical processes are capable of producing marked and profound mental changes. These facts are too well understood to need further enlargement. How these physical and mental ch nges occur is sometimes difficult to explain, but their presence in the individual is undisputed.

The author then refers to the marvelous development in recent years of psychological research as well as the demonstrations of its power in healing the sick and afflicted, and claims that simultaneous with its growth and cultivation all forms of quackery have arisen apparently as its legitimate offspring. The reason assigned for the excessive amount of empiricism as well as its popularity is claimed to be due to the wonderful results attained by these irregular practitioners in morbid conditions which have hitherto resisted all other means of treatment, but which have rapidly yielded to the free use of purely psychologic methods which we now designate as the psychological factor in medicine.

A strong plea is then made in behalf of not only its study but also its recognition by the regular general practitioner as part of his armementarium. So common and widespread are curative results now obtained more especially in morbid neurotic conditions that refused to yield to the more strictly scientific conservative methods of the regular family physician that the laity have about come to the conclusion that the quack with his non-medicinal or psychological methods is even of greater benefit to mankind than the more common modes of treatment which the regular graduate of a medical college employ. This places us at a disadvantage because of our stubborn refusal to study impartially the merits and demerits of the various elements which constitute the psychological factor or failure to apply them in certain, morbid conditions

*Read before the recent meeting of the Missouri Valley Medical Association.

where they are especially indicated because they seem to smack of quackery. No method, however, should be decried as trivial or utterly worthless or even unethical if it proves successful in the relief and cure of disease although at the same time it may be recognized as the most potent agent used at the present time in the practice of the various forms of quackery.

If scientific medicine means what Dr. Hadra tells us it is, viz: "The sum of systematized knowledge acquired in every conceivable manner and that it must have full and perfect liberty and not allow itself to become imprisoned within certain limits and that its object is nothing more than truth itself," then I think we as regular physicians have sufficient latitude to compass any and all methods under whatever name they may be known, that prove successful in the alleviation of suffering and disease.

The author then enlarges upon the pathogenic influence of both emotion and idea when applied to disease and forcibly illustrates it by reference to the serious degree in which it is manifest in Hysteria and Neurasthenia as well as Hypochondria. The definite idea for instance, of weakness in a limb may later render it impossible to will its normal movement hence, functional paralysis occurs, the conception of a pain in a part may by continued and persistent selfintrospection become so magnified as to lead the patient to believe he is suffering from cancer. It is in such conditions that the psychologic factor becomes a cause instead of a cure for disease and illustrates the importance of untimely and unnecessary remarks during the examination of such a person by either the physician or friends relative to the absence of certain symptoms which should be present in order to confirm the diagnosis or the probable complications which may arise as a result of the existing condition, all of which tend to produce ever more troublesome features beside exaggerate those already present in the case. Moreover, these pathogenic ideas and consequent states of ill feeling form the basis that lead to the formation of the various morbid fears or phobias-obscessions or besetments which are accompanied with vacillating mental states illustrated in the various forms of doubt and indecision concerning the patient himself or his future actions. Whatever their cause they must of necessity be compensated for hence it is nonesense to consider them shâms or purely imaginary ailments as they must be met in an appropriate manner before any normal mental change can be looked for. The point emphasized by the author is that in their treatment quite often the pathogenic idea with all its pernicious train of ill feeling and vacillating mental and physical states constitutes in large part the pathogenic therapeutic problem to be overcome. In the practical application of obtaining relief through the influence of mind on mind or by means of the psychological factor we find there are two methods operative, one of these sudden in its effect as seen in litigation cases after a verdict favoring the plaintiff has been reached or where a long continued hysterical paralysis suddenly recovers.

The other is more gradual in bringing about the same result and while the latter result may not appear as brilliant as in the former case, yet its results are usually more permanent and consequently more satisfactory. Why in the one case the result is sudden and in the other more time is needed is sometimes difficult to explain—but we are not now concerned in explaining the occult mechanism of the mind on mind or whether it be due to conscious, unconscious or subconscious influence, that which should concern us most as physicians at all times is the relief and cure of the patient rather than the peculiarity of the method by which it is accomplished. When we come to analyze the power by which such apparently wonderful results are attained by these irregular practitioners we conclude that in its quint essence it is nothing more nor less than that included in the general term suggestion. This powerful therapeutic agent, however, is known under a great variety of synonyms such as Hypnotism, Doweism, Mesmerism, Spiritualism, Faith Cure and Magnetic Healing, Psycho-Therapeutics and Christian Science. Suggestion, however, constitutes the chief corner stone upon which all these are reared, but to be potent for good in therapeutics it must embody the various elements which belong to the psychologic factor which at times require shrewd care and judicious selection combined with skill in their varied application and manipulation. For the purpose of its greatest beneficial service the first step is to gain the full and complete confidence of the patient a task not always easy, but when accomplished the patient must be carefully studied relative to the peculiar mental traits and characteristics which in turn will suggest the birth of the new ideal creation to be established. The treatment therefore independent of Pharmacology or Surgery embodies an educational scheme which has for its chief purpose the remoulding of the mental forces. The essential qualifications of the newly acquired mental formula to be established should embody the inspiring influence belonging to Hope, Progress and Co-operative with sufficient

force and power as to impress upon the mind of the patient the certainty of recovery. This therapeutic plan, therefore is intended to restore to the will its normal control of the emotions and intellect which give birth to not only normal, but also morbid ideas at the same time teach the patient to become more self-confident, self-dependent and self-reliant without which all other means of treatment prove futile. In the accomplishment of this purpose, the psychologic factor inherent in the physician himself and that which constitutes his own personality and individuality must be carefully considered. The very nature and character of his mentality as well as his methods of examination and other means employed in the case must of necessity appeal to the intelligent co-operation of the patient as well as favorably impress the mind of the patient as to their potency for good. To attain this end many agents are employed as adjuvants the most useful of which perhaps are Electricity, Massage, Hydrotherapy, Dietetics, Employment, Use of Drugs, Amusements of all Kinds together with many other agents, all of which at times have their appropriate indication and special uses. When all these various elements are duly considered and judiciously selected and employed they often result in producing unusual beneficial results by the establishment of hope for fear, courage for despondency, satisfaction for disappointment, confidence for distrust, peace for obstinate hostility, harmony for discord, happiness for sorrow and above all, health for disease. When any physician is able to accomplish such a desirable consummation as this the highest art in medicine has been attained irrespective of the means employed and the thanks of the patient as well as the conscious satisfaction of having exemplified the power and virtue of your own professional ability in restoring such a sufferer is forever yours.

In conclusion it is clear that the demands of the age are such as to require us as regular physicians to take another step in advance by recognizing the powerful potency belonging to Mental Therapeutics.

It should therefore be embodied in the curriculum of our medical college education. When this is done instead of standing idly by as we now do watching the marvellous results obtained through its influence by others we shall rather take advantage of this golden opportunity for ourselves, thereby saving the chagrin and ridicule which will surely follow our failure. Indeed the time is at hand when the regular physician who attempts to practice the Healing Art without giving due credence to this part of his education is wholly unprepared to meet the various exigencies that belong to the relief and cure of morbid nervous affections besides depriving the patient the full and complete medical service that justly belongs him. By the recognition and incorporation of this powerful neglected agent in our medical curriculum as well as its legitimate establishment in scientific therapy all former suspicion of its apparent unethical character will rapidly disappear and its universal adoption in medical practice will not only win new laurels for ourselves, but also restore the waning confidence of the public in the efficacy of the science of medicine when practically applied. May the members of this Association no longer allow themselves to be misled or deceived by the wity methods of the quack, but rather recognize for himself the practical utility of the Suggestive Art which when shorn of its fraudulent vices embodies virtues of character and possibilities of professional ability the possession of which will convert many of our former clinical failures into the most gratifying and brilliant success.

May such a privilege as this be ours.

Diagnosis and Treatment of Gall-Stones *

By Stuart McGuire, M. D., Surgeon in Charge St. Luke's Hospital, Richmond, Va.

Cases of gall-stones have been recognized and treated for many centuries, but until Marion Simms did the first premediated operation for the removal of a biliary concretion, some twenty-six years ago, the disease was considered a medical one and not amenable to surgery. The belief that gall-stones could be relieved by diet, exercise, mineral waters and drugs has been so long entertained that the laity and many of the profession still think that surgery should only be resorted to when continued jaundice or profound sepsis threaten the life of the patient. This fallacy is being dispelled and no stronger or more conservative statement of the present concensus of opinion can be cited than that of Kocher, who states in his recent book that while he does not go to the length of saying that gall-stones "belong" to the surgeon, as possession is nine points of law, and hence they are the property of the patient; still, "If the patient prefers to wait in suffering and pain for a stone to work its way down *per vias naturales* he is but employing his personal privileges. But in the present day a surgeon is certainly justified in telling a patient with gall-stones that by an operation he can be

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quickly and safely cured of his trouble, and be saved from an eventual danger more rapidly and more easily than by any other treatment."

The results of the work of Mayo, Kehr Robson and others show that early surgery in the biliary tract, like early operations for appendicitis, is safe and easy; while late surgery is difficult and desperate, and lead to the inevitable conclusion that in all cases of gall-stones an early effort should be made to restore health, rather than a late effort to save life.

The importance of gall-stones can only be recognized after an appreciation of the frequency with which the disease exists. Naunym, in post-mortem examinations of a large number of bodies, found them in 10% of all cases. The reason why a diagnosis of the condition is not made oftener is because in 85% of cases the stones are quiescent and give rise to no trouble, and in the remaining 15% of cases the symptoms originating from gall-stones are frequently misinterpreted and attributed to gastritis, intestinal indigestion, chronic appendicitis, loose kidney or other causes.

The surgeon who constantly bears in mind the possibility of cholelithiasis in every patient with obscure abdominal disease, will be the man to make the diagnosis or gall-stones in the largest proportion of cases. Looking for gall-stones will not give them to a patient, but finding them will usually bring relief through an appropriate operation.

Gall-stones are usually secondary to infection of the gall-bladder with the colon bacillus or the germ of typhoid fever. They are usually found at or after middle life, are three times more common in women than in men, and are most often observed in those who lead sedentary lives, wear tight clothing or eat to excess. The symptoms of gall-stones depend largely on the location of the stone. If the calculus is in the gall-bladder or cystic duct the symptoms are local, and consist of spasmodic pain, attended by tenderness in the epigastrium, and frequently distention of the gall-bladder sufficient to make it perceptible on palpation. If the stone is lodged in the hepatic or common duct in addition to the foregoing local symptoms there will be constitutional disturbances, such as jaundice, due to the absorption of bile by the blood.

The diagnosis of gall-stones is easy when there is characteristic colic, local tenderness, nausea and vomiting, and more or less pronounced jaundice, but unfortunately the co-existence of these classical symptoms is rare, and the surgeon who hesitates to operate because one or even two of them are absent will give relief to many patients.

In the record of a large number of cases where gall-stones were found to exist only one-half of the patients gave a history of biliary colic and only one-fifth a history of marked jaundice.

Ochsner, in describing the symptoms that will most constantly lead to the correct diagnosis when gall-stones are present, classifies them about as follows:

1st. Digestive disturbances, such as weight and burning in the stomach, and distention of the abdomen, after eating.

2nd. Dull pain, beginning in the epigastric region, extending to the right along the level of the tenth rib, and distributed to the spine and right shoulder blade.

3rd. Tenderness upon pressure at a point between the umbilicus and the ninth costal cartilage of the right side.

4th. History of having had one or more attacks of typhoid fever or appendicitis.

5th. Slight yellow discoloration of the skin, not sufficient to be recognized as icterus, but still sufficient to be perceptible upon close inspection.

6th. An increase in the area of liver dullness.

7th. A swelling of variable size sometimes seen opposite the end of the ninth rib.

In conclusion Ochsner says: "Of course, if we have added to these symptoms the biliary colic, followed by distinct jaundice, and possibly the passage of biliary calculi, our diagnosis is still further confirmed, but even without these three last conditions we must make the diagnosis ordinarily, or we will miss the diagnosis in most patients suffering from gall-stones."

It is obviously impossible in some cases to make an absolute diagnosis, but the surgeon belongs to an unhappy branch of the profession whose business it is to look for trouble, and when a case is referred to him with symptoms in the region of the liver that have defied medical treament, he should open the abdomen, ascertain the nature of the disease and give relief by an appropriate operation.

In following the above practice I am free to admit I have failed to find the suspected stone in about one-fourth the cases operated on, but I have never failed to find "trouble." If there was no stone there was cholecystitis, flexion of the gall-bladder, cancer of the liver or some other pathologic condition. If there was no operation to be done for stone there was the equally important work of draining the gall-bladder for infection, or suturing it in a position to correct angulation and prevent residual bile, or anastomosing it to the doudenum to overcome irremediable obstruction of the common duct from malignant deposit.

Operations on the gall-tract have recently

been rendered easier and more accurate by an improved technique. Just as the method of exposing the kidney for operative manipulation has improved so has the method of exposing the liver. When surgeons first began to do work on the kidney an incision was made and the work done through it on the wabbling kidney beneath. Now the kidney is delivered through the wound and the work done on it while it is fixed in position and under actual inspection. So, too, in hepatic surgery. Formerly the incision was made and the work attempted in an inaccessible location. Now the patient is placed on the table in a slightly reverse Trendelenburg position, with a sand bag beneath the back, thus carrying movable viscera towards the pelvis and making the liver itself more prominent. An incision is made beginning near the ninth costal cartilage of the right side and running vertically downward through the outer border of the rectus muscle. If complications are met with and more working space is required the opening may be enlarged by a second incision beginning at the upper angle of the first, and extending obliquely upward and inward to the tip of the ensiform cartilage. This last incision divides the skin and anterior and posterior sheaths of the rectus muscle, but does not sever the fibres of the rectus or the peritoneum, as these structures can readily be stretched by a retracter.

The anterior border of the liver is grasped by the right hand of the assistant and drawn first downward and then outward until at least one-third of the organ is delivered in the wound. This brings the gall-bladder practically outside of the body and renders the ducts straight and easily accessible. After opening the abdomen the gall-bladder should be carefully palpated for stones. If it is tense with fluid it should be emptied before being incised. If the ducts are open this can be accomplished by gentle but firm pressure against the liver. If they are closed the fluid must be removed with a canula or aspirator. The gall-bladder should be opened whether stones are found or not, as it may contain biliary sand, thick tarry bile, or be chronically inflamed, and hence require drainage.

Before making the incision into the gall-bladder the general peritoneal cavity should be carefully protected from contamination by a well placed coffer dam of guage. This can be effectively done by taking a piece of gauze two yards long, folding it into a strip the width of the hand and rolling it into a bandage. This is unrolled and systematically packed in the abdomen, beginning at the left side of the gall-bladder, then beneath it and finally to its right.

The incision in the gall-bladder should be in the fundus and of sufficient size to introduce the index finger. Stones found in its cavity should be removed with a scoop devised for the purpose or with a dull uterine curette.

The question of the potency of the cystic, hepatic and common ducts will next have to be determined. It is well to bear in mind that they may contain a stone and still be capable of transmitting bile, and again that they may contain no stone but be temporarily occluded by swelling of their mucosa.

There is no well determined procedure to settle this important point. Some surgeons rely largely on the patient's previous history, but this is uncertain, as Kehr has found stone in the common duct in a large number of cases that had never manifested jaundice. Other operators endeavor to pass a probe through the ducts, but this is bad practice, as experiments in the dead house show that a probe will not pass through the *normal* cystic duct, owing to a valve like arrangement of the mucous lining. Ferguson and Van Hock endeavor to inject water or air through the ducts, but this method is time consuming, requires special apparatus and endangers sepsis. Weir adopts the plan of dropping a pellet of methylene blue in the gall bladder just as he completes the operation, stating that if the ducts are open the coloring agent passes into the intestines and stains the faces, but if the ducts are closed the result is negative. The method is safe and ingenious but does not help to solve the problem while the patient is on the table.

Practically the best that can be done is to palpate the ducts carefully and systematically from their origin in the gall-bladder and liver to their termination in the duodenum, which can be satisfactorily done by introducing two forefingers into the foramen of Winslow, behind the ducts, and making pressure on them with the thumb from the front. If a stone is found it should be removed by incising the duct; if one can not be detected the duct should be left intact.

Owing to the varying location of gall-stones and to the many complications that result, a great number of operations have been devised to meet the different conditions encountered. Gall-tract surgery is young compared with surgery of the pelvis and of the appendix, and the indications for certain methods have not yet been definitely settled.

Cholecystotomy consists in the incision of the gall-bladder, the removal of its contents and the immediate closure by suture of the opening in the viscus. The operation is indicated for stones in a healthy gall-bladder with unobstructed ducts. It is called the "ideal operation" by its advocates and

the same term is applied to it satirically by its opponents. The cases in which it is safe to apply the method are very exceptional.

Cholecystendesis consists in the steps described in the operation of cholecystotomy, except that in place of dropping the gall-bladder back in the abdomen, the fundus is anchored by sutures to the abdominal incision. The object is either to correct flexion or to place the organ in such a position that it will be accessible in case it is found necessary to open and drain it.

Cholecystostomy consists in the incision of the gall-bladder, the removal of its contents and the subsequent drainage of its cavity through the abdominal incision. The fistulous opening may be formed either by sewing the cut edge of the gall-bladder to the parietal peritoneum with chromicised catgut, or preferably, by tying a tube in the opening of the gall-bladder with a purse string suture and bringing it through the abdominal incision, either trusting to adhesions forming around the tube before its detachment, or bringing the gall-bladder in contact with the under surface of the wound by two suspension ligatures. The operation of cholecystostomy is indicated in gall-stones complicated by acute or chronic cholecystitis and is the method applicable to the majority of cases. It prevents accumulation of fluid in the diseased viscus, affords exit for an overlooked stone, and cures inflammation of the gall-bladder and ducts by providing free and prolonged drainage.

Cholecystectomy consists of the removal of the entire gall-bladder. The operation can be done with comparative ease if the cystic duct be first lighted and divided, and the viscus freed from the attachment to the liver from behind forwards. The indications for the operation are yet unsettled. There is no doubt that it can be done with low mortality, but the question is as to the ultimate results that follow it. Davis, of Omaha, and others claim that it avoids a fistula with the attending long convalescence, removes a useless organ, prevents the possibility of stones reforming, and gives the patient the best guarantee of complete restoration to health. Richardson, of Boston, at one time an enthusiastic advocate of the operation, now condemns it except in selected cases, as the removal of the gall-bladder prevents its utilization as a drainage tract, and patients after the operation frequently have a recurrence of symptoms which, owing to the absence of the gall-bladder, he is at a loss to know how to relieve. A conservative statement of the present opinion of the profession in regard to cholecystectomy is that the operation should be limited to cases of irremedial obstruction of the cystic duct, and to cases of gangrene or malignant disease of the walls of the gall-bladder.

Choledochotomy consists in the incision of the common duct for the removal of a stone. The term is also sometimes used to describe incision of the other bile ducts. When the stone is lodged at the opening of the common duct into the intestine it is best reached by McBurney's trans-duodenal route; otherwise it is best gotten at by approaching the duct by the external route to the right of the duodenum. An incision is made in the duct parallel to its long axis and the stone removed either complete or fragmented. Halstead and others advise suture of the opening, but the majority of surgeons state that this procedure is unnecessary, and the present practice is simply to drain Morrison's pouch with a tube and gauze.

Cholecystenterostomy consits in the anastomosis of the fundus of the gall-bladder to the duodenum, preferably by means of Murphy's button. The operation is indicated for irremedial obstruction of the common duct from cancer or other causes, and relieves jaundice by affording a new avenue by which bile can pass from the liver to the intestinal canal.

X-Ray in the Treatment of Cancers.*

By P. St. L. Moncure, M. D, Norfolk, Va., Physician in charge of the X-Ray Laboratory, St. Vincent's Hospital, Norfolk, Va.

So much has been written recently on the therapeutic value of x-rays—the journals have been full of its wonderful cures, its failures, and its horrible burns—that I will not burden you with the thread-bare story of its discovery in '95 and its progress through each succeeding year; but, after touching briefly on the several theories of its therapeutic effects on the tissues, I will confine myself to my own technique of applying it; my personal observations of its beneficial uses; and the dangers arising from using it indiscreetly or carelessly. When we consider that we are dealing with an agent powerful enough to overcome a disease which has baffled the efforts of the best surgeons of the country, and for which no therapeutic agent has heretofore given more than temporary relief, we can imagine that its incautious use is also calculated to do harm.

X-rays are still to some degree in the experimental stage; and while we know many of its useful and dangerous effects, and much of its physiological action on normal and morbid tissue, yet we are still in some measure practicing empiricism.

*Read at the Monthly Meeting of the Norfolk Medical Society, Feb. 9, 1904.

Several theories are advanced as to its curative effect, the discussion of which I will not enter into; but accept the most popular theory: That the rays are ordinarily stimulative in action; but have a selective destructive effect on cancer cells on account of their low vitality; and stimulate rather than destroy the healthy tissue which is better able to resist their destructive action.

X-rays in small doses are stimulating, which if pushed are destructive, not only to abnormal but also to healthy tissue, hence the rays should be used just strong enough to destroy cells of low vitality, and stimulate the surrounding normal cells. But right here is where we burn our patient. To work our machine so as to give rays of such intensity and penetration as to destroy the unhealthy tissue without at the same time painfully burning the surrounding healthy tissue, is an art that only experience can teach. To quote from Dr. Wm. Francis Campbell, of Brooklyn: "The technique of x-ray therapy is not a science, it is an art; it is not to be learned from books, it is the product of experience; it evolutes as experience ripens, and each case demands an adjustment of the means to its particular needs." I usually scorch, so to speak, my patients deliberately; i. e. push the intensity, frequency, and length of exposure until I begin to get the physiological action of the rays on the surrounding healthy tissue —a dermatitis—I know then exactly where I am. The frequency, length of exposure, quantity of rays, etc., will then depend on circumstances—largely the degree of dermatitis—whether this is very painful to the patient;—and the amount of destruction to the cancerous tissue. It does not necessarily call for a cessation of the exposures; but I invariably give them less frequently and usually place my tube at a greater distance from the surface.

The penetrating power depends on the wave length of the rays, which in turn is directly dependent on the vacuum of the tube; the higher the vacuum, the longer the wave length of the rays, and hence their penetrating power. Tubes are spoken of as hard, medium and soft to express the degrees of vacuum. Soft or low vacuum tubes are recommended by some authorities as being best for the treatment of malignant growths, but I much prefer a hard or medium hard tube for all cases, and do not find it any more liable to burn my patient. The tubes I am in the habit of using generally, have devices by which the vacuum can be lowered or raised at pleasure—(I prefer—possibly because I am more used to them—the Queen & Co., self regulating tubes for therapeutic purposes; and the Gundelac heavy anode tube for radiographic work.)

The *Quantity* and *Intensity* of the rays depends on the amperage of the coil and can of course be regulated on the spot by the rheustadt. It has been my experience that too great intensity or quantity of rays will burn the patient, and ruin the tube, quicker than anything else. The intensity of the rays varies inversely as the square of the distance from the target of the tube; hence, the further the patient is from the tube, the more uniform will be the effect; but we will be less apt to get any effect and certainly will be longer in getting it. I usually place the tube (meaning the target of the tube) from five to eight inches from the exposed surface; however, after getting some dermatitis of the surrounding healthy tissue, I place it eight to ten or twelve.

The length of time of exposure should depend on (1) the quality of the tube—whether hard, medium, or soft—(2) the quantity or intensity of the rays (3) the distance of the tube, and (4) the effect produced. My average exposure is ten minutes, unless there is some special indication for making it shorter or longer—and here is another source of danger; often times for fear we will not give our patient all that he is paying for, we expose him too long, or too intensely for his own comfort, and will soon hear him complaining of the skin feeling as if a coal of fire were on it. The extremes of my exposures have been *five* and *thirty* minutes.

In a large majority of cases I believe every second day is often enough to expose them—even in the beginning of the treatment; yet there are certain cases in which the growth is rapidly approaching some vital part; is fast destroying the tissues; and in which there is hemorrhage and foul discharges due to secondary infection, that the daily exposure is not too often to begin with. However, in a week or ten days, or two weeks at most, the daily exposures can be dispensed with. The first effects of the exposures are: Relief of pain, which is almost instantaneous—patients will remark *directly* after the first exposure that their pain has disappeared; this is more or less lasting too—not returning for at least twelve or twenty-four hours, even should they not be exposed again. The purulent discharges too will gradually though as surely, disappear; this is supposed to be due to the germicidal effect of the rays—and is one of the theories advanced as to the cause of its beneficial effects on malignant growths. Experiments have successfully proven that it is germicidal to bacteria both in culture and living tissue—but very much

more so to bacteria on or near the surface. Covering the surface of the ulcer or culture media even with gauze—which offers no resistance to the penetration of the rays—seems to diminish the germicidal effect of the rays. However, they dry up secretions from any cause, and what was a foul smelling, running ulcer, soon becomes a dry, clean, granulating surface.

Superficial growths most readily respond to treatment, and those cases in cavities which I have treated, as for instance the nose; it was the part of the growth bordering on the skin, and superficial, the first responded.

I question, beyond the anodyne effect, whether the x-ray alone will benefit anything but a superficial growth.

Idiosyncrasy: Though disclaimed by some authorities, I find some people decidedly more sensitive to the effects of the x-rays than others, younger people more so than older ones, and just such people as will easily sun-burn, will also be the first to get up a dermatitis from the rays. The surrounding healthy skin should in *all cases* be protected by lead foil I believe, and especially should this be carried out about the face or head as it is here more apt to set up dermatitis, and will certainly destroy the hair.

I use any other treatment in conjunction with the rays that may be indicated, endeavoring always to keep the growth or ulcer as clean and as *dry* as possible. Peroxid of hydrogen, and also solution of Potassium permanganate act well in cleaning up the pus and getting rid of the odor. As suggested, and practiced by some authorities, I gave in one case, Quinine Sulphate internally each day before radiation, for the purpose of producing artificial fluorescence of the living tissue. I am unable to say though what influence this had on the effect of the rays, I do know, however, that this particular case, which was a very large rapidly growing ulcerating carcinoma of the breast, developed a very extensive burn of the second degree.

The number of exposures necessary to cure any case depends on a great many things, both as to the character of the growth and also, quality, intensity, distance, &c., of the rays.

Small squamous celled carcinomata will dry up and drop off after very few exposures—say six to twelve—while in deeper seated and more extensive growths, I have made twenty exposures before seeing any decided improvement.

From a therapeutic standpoint the choice of a machine—whether a coil or static—is a matter of individual preference. I use an Edison coil, 12 inch spark, mechanical interrupter, on a 110 volt direct current circuit; this with a Queen, self regulating 5 inch tube, I can regulate for all purposes—radioscopy, as well as for deep and superficial, radiotherapy. The best instruction in the management of an x-ray apparatus, of whatever type, and in the use of x-rays for whatever purposes, is *experience*, and a plenty of it. The operator should study his individual machine; and I believe it is better to stick to one tube that he knows all about, in the treatment of some special case, than to use tubes promiscuously, of different vacuum, thereby being unable to determine what quality of rays is benefitting his patient most.

Each machine should furthermore, have one special operator; one who studies and understands the apparatus and knows the quality of rays produced by each tube—(and he should have several tubes for different classes of work.) He can then hold only himself responsible for the care of the machine, and the results obtained therefrom.

X-rays have been used with varying degrees of success in nearly every form of skin disease. I have used them in eczema, acne, and furunculosis with some success; but the great majority of my cases have been malignant growths, of which I will report a few selected cases.

Case I. Mrs. S., aged 56, came to St. Vincent's Hospital, April, '03, for removal of an enormous ulcerating carcinoma of left breast, of eight years' duration which, however, had only become painful and taken on rapid growth within the past few months. The axillary glands were involved, surrounding tissue was indurated and blue, patient was cachectic, and all things made recovery hopeless from a surgical standpoint. I removed the breast, doing a Halstead operation as nearly as possible under the circumstances, (patient was very weak and emaciated and could not stand a long anaesthetic) but on account of the low vitality of the tissues the wound did not heal very well. There was at first union, but which soon broke down and became infected, and it was only after a week or more that the x-ray was used; the pus rapidly disappeared; pain which had been complained of in the shoulder and running down the arm immediately left her; and after a very few exposures she got a healthy granulating wound which was skin-grafted, and took nicely, (the rays were suspended for a while, but afterwards resumed with diminished intensity.) The patient gained in weight considerably, the wound healed entirely, and she left the hospital apparently well; but with instructions to return to me if the growth came back. It has now been nearly twelve

months and she has not returned; but on account of the vast involvement of this cancer I should not be at all surprised if it did return.

Case II. Mr. C., aged 63, farmer, has never had any serious illness in his life. Fifteen years ago a small pimple appeared on the side of nose, giving no pain or inconvenience but remained there, although many local remedies were resorted to for its removal. It grew very slowly until about five years ago, when it became more active and painful. He went to a so-called cancer doctor who under a spurious guarantee removed it with some caustic—probably, from the description, arsenic paste. The ulcer *nearly* healed, and remained very small for a while, but in due time returned and this time with renewed energy, rapidly destroying all the lower part of the nose, including the cartilage, even of the septum, down to the bone, and had begun to spread down into the upper lip. It had a very offensive discharge and was giving him severe pain. He came to me in July in the condition as above described and took his first exposure, remarking before leaving the laboratory that his pain had left him; after eight or ten exposures the secretions had all subsided, odor disappeared and the ulcer looked clean and healthy. After the fifteenth exposure he complained of some burning about the upper lip, which resulted in a decided burn of the second degree after the seventeenth exposure, and I was forced to give him a rest of eighteen days, the pain was controlled very readily with cocaine ointment. He returned and after the twenty-first exposure I discharged him as cured. He has been reporting back to me every three weeks since. (4 months) and I have seen no signs of a recurrence. He is to-day a new man in spirits and vigor, and has been asking me if I could get him an artificial nose. I still have him under observation and shall continue to have him report to me regularly for inspection.

Cases III. and IV., these cases being so nearly alike I will mention them together: Messrs. C. & W., aged 52 and 63 respectively, came to me Sept. 1903, each having a small dry epithelioma on the side of the face which had been growing very slowly but which had resisted all efforts to remove them, they had been there three or four years. The rest of the face was well protected with lead-foil and exposures given at first three times a week; later only twice. After eleven exposures each, the growths had dried up and dropped off, and I discharged them as cured, there has been no evidence of a recurrence.

There was no dermatitis in these cases to speak of, and I mention them to show how quickly and easily this class of growth can be removed in the early stages.

I will report only one other case, and this only to say a word or two with regard to burns and protection against them.

Case V. A negress, 45 years of age, mother of eight children, health always good until recently. About three or four years ago she noticed a hard lump in right breast which grew steadily. Various local applications were made, usually by direction of some *cancer* or *conjure* doctor. I saw her Dec. 26, '03, and found her suffering intense pain, with an enormous ulcer, 3 by 5½ inches, which had practically eaten off the breast; axillary glands on that side were very much involved and had begun to break down; there was hardness also in the other breast; the surrounding tissues were indurated; and about twenty metastatic processes, about the size of a dime surrounded the original ulcer. She was admitted to St. Vincent's Hospital, Jan. 6th, '04. The ulcer was cleaned up with peroxid of hydrogen and a weak, moist dressing of permanganate of potash solution applied three times a day. Exposures were given daily, and on account of the enormous involvement, no protection was given the surrounding parts; the tube was moved two or three times during each exposure that every part might get the benefit of the rays, making a total length of exposure each day about 25 minutes. The secretions and foul odor rapidly disappeared, but after fifteen exposures, a pretty lively dermatitis had been set up and the exposures were diminished to every third day. After two or three more exposures, however, the dermatitis increasing, the patient was allowed to go home, until this subsided. The dermatitis appeared first about the lips and face. One week later I was sent for to see the patient, her husband saying she had been shocked almost to death. I found her suffering little or no pain; but with a burn of the second degree extending from and including part of the face down to the middle of the abdomen; all the epidermis had come off leaving an almost white surface beneath; the ulcer itself was looking very healthy and gave her no pain, the metastatic processes had disappeared, and the hard thickened tissues surrounding the ulcer had softened. Patient had some fever and was very weak; but in every other way very much better than she was before treatment was begun. Patient has since been reported as improving and hopes soon to be able to return for completion of the treatment. This patient during the treatment was given fifteen grains of Quinine Sulphate daily to produce artificial fluorecence. I mention this case more especially to emphasize the

fact that apparently hopeless cases will respond to vigorous treatment, and that we cannot be too careful to protect the surrounding healthy tissue.

Radium Rays; and Their Therapeutic Possibilities.*

By G. W. Drake, M. D., Roanoke, Va.

A man sometimes says his wife is worth her weight in gold. Radium is worth three times its weight in gold ($2,700,000 a pound). Its value does not consist in its outward appearance, but in its wonderful properties. It is not so handsome as the pearl or the ruby, and not so brilliant as the diamond. It shines with a modest, mellow light, resembling that of the glow-worm. It is the most wonderful of all the material elements yet discovered. Professor Merritt, of Cornell University, in a recent article on "The New Element Radium," closes with these words: "We have reached only the beginning of the great field of scientific investigation which the discovery of radium has opened up, and we can no more anticipate its ultimate effect upon scientific theories than we can predict its application to the affairs of practical life. But of the great importance of this remarkable element, both from the practical standpoint and from that of pure science, there can be no doubt; and for this reason the work of the many able investigators in the new field of radio activity will be carefully followed by all who take an interest in scientific progress."

Professor Rutherford, of McGill University, Montreal, thus defines radioactivity: "Substances which possess the property to throw off material which carries with it a positive electric charge. This charged material can penetrate, to some extent, through solids, is deviated in electric and magnetic fields, and appears to consist of particles of matter about twice the weight of a hydrogen atom, moving with a velocity about one-tenth that of light. This is known as the alpha (a) co-radiation, and accounts for about 99 per cent. of the energy sent out by a radio-active substance. Another kind of radiation, known as beta (b) or Keathode ray, is also emitted. It is negatively charged, more penetrative, and more easily deviated than the alpha (a) radiation, and appears to consist of particles about one-thousandth the mass of the hydrogen atom. A third kind of radiation known as the gamma (r) is more penetrative still, but up to the present has not been sufficiently studied to enable its properties to be definitely stated."

The radioactive substances are found to differ from one another widely in many respects, but all have one property in common; they all send out spontaneously a *peculiar* kind of rays, called Becquerel rays, which affect photographic plates, discharge electrified bodies, excite phosphorescence, pass to some extent through all substances, like X-rays, but the denser a substance the greater the difficulty of their passing through it. The pictures made by these rays on photographic plates are called skiagraphs (shadow-graphs), also radiographs.

The Becquerel rays from radium are a million times as strong as those from its two congeners, uranium and thorium.

Some substances, opaque to X-rays, are transparent to radium (or Becquerel) rays. For instance, X-rays pass through the flesh but not through the bones, and Becquerel rays pass through the bones almost as readily as through the flesh Becquerel rays consequently do not make a sharp shadow picture of the bones in the hand like that made by X rays.

It has been estimated that the radium radiation is reduced to 1 per cent. of its original value after passing through $2\frac{3}{4}$ inches of lead, 7 inches of iron, and 56 inches of water.

It is said that all the radioactive substances, including polonium, as well as excited bodies and the *emanations*, give out alpha rays. The alpha rays are very absorbable, and only a small proportion of them pass through a thin screen of metal or a sheet of note paper.

The compounds of radium are spontaneously luminous. This light diminishes rapidly in moist air. If the salt is in a sealed tube the light diminishes slowly, the white salt, radium chloride or bromide, becoming colored, but the light never completely disappears.

A glass vessel containing radium spontaneously charges itself with electricity. If the glass be scratched with a file at the spot where there is a defect, an electric spark is produced, and the vessel crumbles like a Leiden jar when overcharged.

Radium possesses the property of manufacturing from itself radioactive matter of quite distinct chemical properties from the producing radium. The "emanation" (or gas) from radium loses half its activity in about four days. It, like ordinary gas, can be stored in a gasholder, and still retains some activity after standing a month.

Radium emanation imparts its activity to surrounding objects by settling on them like dust; but it is so extremely fine that it is invisible. Like other gases it is diffusable through the air. In addition to its diffusibility, it possesses the property of ionizing the air and making it a conductor of electricity. It differs from other gases in the fact that it *disappears*. This gas or "emanation" constitutes the alpha group of

*Read before the Tri-State Medical Association at Danville, Va., Feb. 23, 1904.

radiations, and is made up of positively charged atoms.

The source of radium energy is a puzzling problem—the pons asinorum to the greatest scientists in the world.

The most remarkable fact connected with radium is its spontaneous and continuous emission of heat—the estimated rate of emission being about one hundred colonies per gram per hour, and without appreciable loss of volume. It melts its own weight of ice every hour.

Professor Merritt says: "Probably radium *does* lose weight. Yes; common sense and scientific philosophy, as now understood, say so; but experiment does not prove it—weighing does not show any change.

"No chemical reaction can explain the emission of heat," says Madame Currie, and she further says, "radioactivity is a property of the *atom* of radium; if then it is due to a transformation, this transformation must take place in the atom itself."

Professor Ramsay has announced that radium emits helium gas continuously. "If," says Madame Currie, "this important fact is confirmed, it will show that a transformation is occurring either in the atom of radium or in the neighboring atoms, and a *proof* will exist that the *trasmutation* of the *elements* is *possible*."

I believe that radium represents in its atoms the primedial elements of matter which God first charged with light, when He said, "Let there be light." In the aggregating of these elements to form the earth radium was condensed from the rarified ultra-gouous state into solid masses, and with an immense amount of latent heat was packed away deep down in the mines of the earth. So soon as brought to the surface, and the pressure on its atoms lessened, the latter begin to disintegrate, and the internal heat is liberated. The particles at and near the surface rapidly fly off in every direction until the underlying more compart part is reached, the particles of which, in their turn, become gradually detached, and fly off in rapidly increasing quantities. Thus the atoms in one zone after another undergo disintegration with the liberation of energy.

If the energy in one grain of radium could be turned loose all at once and converted into mechanical energy, some one has said it would be sufficient to raise a twelve-thousand ton warship ten feet. How high would the energy in this specimen ($1\frac{1}{2}$ grs.), if discharged all at once, raise us, do you reckon? It would be more destructive than the explosion of dynamite. Why, then, is it not more dangerous than dynamite? Because there is no known way of "touching it off." The liberation of radium energy is very slow, and it cannot be accelerated. The temperature remains 5 or 6 degrees (Fahn.) above the surrounding air, no more, no less. It will require a *thousand years* to expend the energy contained in a grain of radium.

In the behavior of its atoms radium represents in miniature a planetary system. A central "corpuscle" or "election" represents the sun, and around it as a centre the "corpuscles," representing the planets, revolve in their orbits, each also turning round its own axis. At inappreciable intervals a corpuscle shoots off at a tangent, escapes from the atomic system and goes flying through the surrounding space at an enormous speed. If it collides with a fleurescent body it developes a brilliant flash of light by which it may be seen, with the aid of a lens, by an observer. The English scientist, Crookes, has devised an instrument called the spinthoriscope, through which these phenomenas may be d scovered. The spinthoriscope consists of a tube $1\frac{1}{2}$ inches long, with a flluerescent screen at one end, a movable pointer like the second hand of a watch, carrying the radium, attached on the under side of the point, being placed over it, and above them a powerful lens contained in a sliding tube.

When one planet-corpuscle flies the track confusion begins, and there follows a general breaking up of the whole system—corpuscles collide with the liberation of heat and light and chaos reigns. The end comes with the total destruction of the atomic system. The heat and light of the system are transmuted into the energy of motion and darkness prevails.

When these changes shall be accomplished in all the atoms in the other forms of matter the heat and light of the universe will be changed back into the primordial energy of motion. The earth will be dissolved into its primordial elements, when it was "without form and void," and "darkness will again brood over the deep." The primordial elements of matter will move as separate uncombined entities amid the darkness of the universe, as "in the beginning," before God transmuted energy of motion into heat and light. God *created* the primordial elements of matter before he *made* atoms, and molecules, and suns, and moons, and stars; and God created the primordial energy of motion before he made light, and heat, and electricity, and the other energies.

We have at present a solar-rays telescope by which the astronomers can look up high into the firmament, and we need next to have an X-rays or radium-rays telescope by which the geologist can look down deep into the earth. The earth contains, doubtless, many relics of the time when "the morning stars sang together and the sons of

God shouted for joy." These relics are beginning to show up as physical chemistry improves its methods of investigation, and widens and deepens its fields of research.

A mine in Barringer's Hill, Llano County, Texas, contains yttrium, thorium and uranium. In this mine pockets of ore have been found ranging from a few ounces up to a capacity of 70 Kilos (154 lbs). These pockets of ore were the nuclei or focal points of rigid lines radiating in every possible direction. These lines penetrated great masses of quartz and orthoclose, feldspar, and gigantic pigmatyt, in some cases, from five to eight feet. These radial lines, says W. E. Hidden, who furnished the information to Mr. Hammer, were fissures, and bore no relation to the natural cleavage, or the crystalline forms of the huge rock masses in which they existed. Easy parting took place along these radial lines, making the ore quickly available. As these lines directed to ores rich in uranium and thorium, both well known sources of radium, etc., it is Mr. Hidden's theory, says Hammer, that the phenomenon is due to an elective or other effect of radioactivity; it being untenable, he believes, to explain this phenomenon on the basis of expansion or contraction.

The plausibility of this hypothesis is strengthened by the fact that air from deep borings in certain localities has been found to possess the property of radioactivity, and the same is true of certain mineral waters. Radium water and radium air may prove to be valuable therapeutic agents. It is not a difficult process to prepare artificial radium water or radium air of definite strength, using a very small amount of radium salt. Radium air may prove to be very efficacious in the treatment of lung diseases, and radium water in the treatment of stomach troubles. Radium rays are so infinitesimal that they can pass through the interatomic spaces of the molecules of the cells of tissues, and through the interatomic spaces of the molecules of unicillular animal and vegetable organisms, pathogenic and non-pathogenic. They may even pass through the spaces between the "corpuscles" of the atoms themselves, for aught we know, so infinitely subtle are the *radium* "corpuscles." The radium "corpuscle" is so attenuated, its size and weight so near zero that it is beyond the grasp of our conception.

The little projectiles from radium are very dangerous, under some circumstances. If shot out at too close range and reach their destination in a too concentrated mass they may do serious harm, but if properly controlled they are capable of good results in the treatment of various diseases, bacterial and non-bacterial. Radium is like a two-edged sword; it may cut both ways and destroy the healthy tissue along with the diseased tissue. It needs to be handled with care, and only by those who understand its properties.

M. Danys, of the Pasteur Institute, in his investigations of the pathogenic action of radium emanations and rays upon various animal tissues and substances has observed that guinea-pigs are more sensitive to radium emanation than rabbits. Such applications of radium rays as cause painful sores on the skins of guinea-pigs only act as stimulants or irritants on the skins of rabbits, and strange to see, produce a prolific growth of hair.

The effect of inserting a minute glass containing one milligram of radium salt beneath the skin, just over the vetebral column of a *mouse* a *month old*, was as follows: In three hours symptoms of heresis and ataxia; and in seven hours the onset of violent convulsions of lockjaw; and death occurred in twelve hours. Subjected to the same experiment a longer time was required to produce the same symptoms and death in older mice; and guinea-pigs of the same age resisted longer time, but finally developed the same symptoms and died. The experiment on animals and insects showed the *nerve centres* were *extremely sensitive* to the action of the radium rays and emanations, but the *intestinal* organs were *only slightly* sensitive.

Radium rays have been shown to arrest the development, and, in some cases, to destroy certain bacteria. On the other hand, they stimulate growth and development, in some cases.

For a time radium was only a laboratory curiosity, a scientific prodigy, but already it is rapidly coming into use as a valuable therapeutic agent. Who knows that it will not prove to be the long sought cancer cure? Many cases have already been reported of the disappearance of cancer under the treatment by radium rays—the radium enclosed between two small disks of copper and aluminum, and the aluminum disk pressed gently against the affected part, or solution of radium in water used hypodermically.

The conclusions reached by Exner and Hornecht, of Vienna, who have used radium in the treatment of carcinoma and sarcoma with satisfactory results, are as follows: "Radium rays irritate the cells of the skin less vehemently than cells of cancer and sarcoma. The last named are brought to necrosis before the other tissues suffer severely from the effects. The Radium dermatitis is very similar to the Rontgen rays dermatitis." It is better to have a radium-ray

dermatitis or an X-ray dermatitis than a cancer dermatitis."

Radium rays have been found to be especially efficacious in the treatment of lupus and rodent ulcer. This fact suggests the advisability of its employment in the treatment of tuberculosis and other bacterial diseases.

Saddy has shown that when radium is dissolved in water, instantly all its emanations are evolved in gas and mixed with air above the solution. This mixture of air and radium gas can be stored in a gasholder, and be kept for future use. Radium gas may prove to be more efficacious in the treatment of pulmonary tuberculosis and other bacterial diseases of the lungs than oxygen gas. Radium gas when inhaled deposits radioactive matter on the parts with which it comes in contact, and the latter *continues* to exercise its germicidal power *several hours after the emanations themselves have been exhaled.*

When radium is brought near the closed eye or the temple the generation of light is produced. This fact suggests its therapeutic uses in the treatment of failing sight, and in certain forms of blindness.

Two boys, reported by Dr. Cauden, of Berlin, who were almost totally blind, were made to see shadows of objects which they were unable to see before, after several treatments by radium rays. Radium rays were employed in the treatment of a little girl eleven years of age, who had been blind eight years, and was not able to distinguish the brightest kind of light, as the burning of magnesium. After the exposure of her eyes to the rays for one minute, she was able to *see a very bright* light, and a month later she had not lost what she had gained. This treatment was made by William J. Hammer, with Dr. Jenkins.

Radiofied water has been used with marvelous effect in the treatment of diptheria in its first stages, as reported in the New York papers. Water is very readily charged with radioactivity by a tube of radium salts.

Radiofied water is not only used as a curative agent, but large quantities of water may be sterilized by radium for use in schools and other institutions where infection or other contamination is suspected. During the prevalence of infectious diseases water may be radiofied, instead of being boiled, to purify it for drinking. It will then be sparkling and palatable instead of flat and insipid.

Recently, R. J. Strutt, while analyzing the waters of Bath, discovered in the famous Spa water appreciable quantities of radium, to which doubtless its great healing effects are due. This fact suggests the advisability of analyzing the waters of the Hot Springs in Virginia and Arkansas, and other places in this country. The Irishman who, when he saw the boiling water and escaping smoke of the Virginia Hot Springs, exclaimed, "hell may not be far from this place" was doubtless mistaken, but the man who says radium may not be far from this place states a very plausible proposition.

In conclusion I offer two theories explanatory of the action of radium:

The first is that radium breaks up into infinitesimal particles, which are projected through the masses of other matter and divide them into fragments so minute that they readily pass through the walls of capillaries into the blood current, and are carried to the emanateries to be excreted. This is the mechanical theory. The second is that the cutting to pieces of the diseased masses by radium rays sets up an irritation in the tissues, causing afflux of blood and aggregation of leucocytes. The leucocytes pick up and carry off the divided masses. This is the vital theory.

Radium shoots its myriads of fiery missiles through tumors, indurations, plastic deposits, etc., cuts them to pieces and renders them absorbable. It also shoots to death bacteria and protozoa by riddling them with its fast-flying projectiles and shattering them into a thousand fragments.

This self-loaded and self-discharging engine of destruction keeps up its continuous but noiseless work with no appreciable evidences of exhaustion. Another remarkable fact is the little projectiles sent out from Radium, wherever they lodge, explode and scatter their fragments in all directions, dealing death and destruction to microbes.

The advertising charlatans will doubtless reap a rich harvest from this new discovery, and I would enjoin the regular profession not to surrender it into their hands, but guard it with caution and use it with discretion, and not turn away from it, when it is shown not to be a cure-all.

There is no doubt in my mind that Radium will prove its right to a place among our most valuable therapeutic agents.

Radium is powerful for good in the hands of the educated and experienced scientist, but in the hands of the uneducated and inexperienced empiric, it is powerful for harm.

Some Cases of Infantile Nephritis.

Fry and Martin (Arch. of Ped., January, 1904,) records the results of the examination of the urine in one hundred infants under three months. The difficulty in obtaining specimens for examinations was overcome by the following expedients: In male children a bottle was firmly bound on the inner

side of the thigh, and the child made to lie on the side until the specimen was obtained. In females, reflex stimulation of the bladder was used either by the application of cold to the pubis, or by direct manipulation of the meatus, a bottle being held in place to collect the urine. Of the one hundred infants examined sixty-five were artificially fed and thirty-five breast fed. The reaction was acid in 64 per cent. of cases, neutral in 36 per cent., alkaline in none. It was noted that the older the infants the more liable was the urine to be acid.

Albumen was present in nineteen of the cases, varying from a trace to a distinct ring, by the Heller test. Of these cases fifteen were bottle fed and four breast fed. Of these nineteen cases seventeen also had casts, hyaline and granular mainly, a few epithelial, but no blood casts. Of the one hundred cases, however, thirty-one had casts—*i. e.*, fourteen had casts without albumen. Uric acid was abundant in twenty-six cases, twenty-three of which showed casts. Sixteen of these twenty-six cases died and autopsies were obtained in seven. Each of these showed parenchymatous nephritis with uric acid infarets, while three cases showed interstitial changes as well. In addition to the sixteen fatal cases six others had clinical evidence of nephritis. While the relation of increase of uric acid to nephritis in infancy cannot be considered settled as yet, it is significant that of the twenty-six cases in this series in which uric acid was increased twenty-three had casts, and that of these twenty-three sixteen had died. They do not believe that the nephritits of infancy is necessarily always associated with the toxic conditions incident to marasmus, and they consider it at least possible that there may be some connection between increase of uric acid and the production of a form of nephritis, which under favorable conditions may be recovered from without serious permanent disturbance.

Superheated Air Used for Chronic Catarrhal Deafness.

Hopkins (Medical News) has had success in the treatment of catarrhal deafness with superheated air associated with massage. He used the hot air treatment in many cases and while none of them, perhaps, is entirely cured, all have been benefited. The writer uses a compressed air heater which drives the superheated air against the ear with as much force as desired. A temperature of 250 deg. to 400 deg. F. is easily borne when thus employed, *dry* air, of course, being used. He employs an electric compressed air heater which acquires its maximum temperature from a given air pressure in ten minutes and finds the rate of elevation just about right. If the temperature is then well it is raised still higher at the ear tip by gradually increasing the ear pressure. Ordinarily the treatment lasts about 15 minutes or until the limit of toleration is reached. No fixed temperature can be employed in all cases, the operator being governed entirely by the individual toleration of the patient under treatment, the toleration not only varying widely in different patients, but in opposite ears of the same patient even under precisely similar conditions. It is necessary, of course, that the ear under treatment shall be clean and packed with dry gauze (two thicknessess) to prevent scalding from the boiling of any moisture present, and when it is done there is absolutely no danger of burning. It has been pretty well demonstrated that intense heat stimulates the circulation through the blood supply on the posterior side of the manubrium, causing absorption of the articular deposits, removing atrophy and relieving rigidity of the tensor tympani. The ossicles lie so near the surface that they receive the full benefit of heat applied to the tympanum and adhesion between portions of the ossicular chain and the adjoining bony walls of the middle ear are readily removed. Treatments are given several times a week for three to twelve months.

Sudden Heart Failure in Toxemic Conditions.

Stanley (British Medical Journal, Dec. 26, 1903.) states that beriberi and diphtheria have a marked degenerative action on the heart muscle, which frequently causes fatal circulatory failure. In this respect beriberi and diphtheria each resemble other toxemias, such as influenza, and alcohol and also other toxemic diseases, such as typhoid fever, plague, and acute rheumatism, which do not or rarely give rise to a peripheral neuritis.

Beriberi and diphtheria are the diseases *par excellence* in which sudden fatal heart failure occurs.

The heart-muscle degeneration is not a secondary result of neuritis of the vagus.

The heart-muscle degeneration takes place as a rule before skeletal-muscle degeneration, and is the result probably of direct action of the toxin and not a secondary result of nerve change.

Sudden heart failure does not indicate a sudden lesion, but rather is the result of a gradually increasing heart weakness from cardiac-muscle degeneration, which may be precipitated by any sudden exertion, but more frequently is the result of the principle of "all or nothing, the transition from "all" to "nothing" being necessarily rapid.

The cardiac physical signs of beriberi closely resemble those found in diphtheria and are of paramount importance in prognosis and treatment.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - - - - - - - - - - - - Charlotte, N. C.

UNCINARIASIS.

This disease occurs as a result of the effect of Anchylostomum Duodonale, or, more commonly called the Hook Worm.

This paracite is one which affects man in a more serious, or, harmful degree than any of the strong lidæ family, and the subject deserves, at the hands of the medical profession of this country a very careful study and consideration, since the recent literature shows that its ravages have been of greater extent in our country, especially the Southern States, than had formerly been appreciated.

The study and investigation is important to the whole country, since we are, more or less, a migratory people, and the South is so attractive for a sojourn during the rigid winter season, to the Northern individual who is so situated that such changes may be taken; and thus it is well that the nature and source of development out of his human host, as well as the mode or method of reception by man, that the protection may be secured against his gaining entrance into man, and the method, or, plan by which the paracite may be destroyed, or, obliterated. This is a matter to be worked out and fully acquired. This subject has received, only of recent years, the attention which it deserves.

The older works on practice of medicine, either fail to mention the paracite, or refer to it only casually.

Leidy, in 1885: "A System of Medicine," by Pepper, wrote, regarding this paracite and its disease: "It probably prevails to a considerable extent in most tropical countries, including the East and West Indies and Brazil. There is also reason to suspect from the nature of the affection which it induces, that it may exist in the Southern States."

Osler, in the earlier edition of his practice, 1894, writing of this paracite and the disease, says: "Dolly states that the paracite was described many years ago by physicians in the Southern States; but no recent observations upon the disease have been made in this country."

The disease has either increased in its frequency and degree of virulence in the South or the profession has been more acutely attracted to its existence.

It is well that this subject be fully discussed, that the profession throughout the country may become thoroughly enlightened upon the clinical features of the disease, resulting from the presence of the paracite in an individual; especially when it is possible individuals may so easily be affected through drinking water, or food, or from whatever source, and returning to the North, or to any section, suffer from the disease.

Ward,[1] Quoting from Stiles, says: "Speaking of the widespread occurrence of a New Hook-Worm, Uncinaria Americana, which is of great etiological significance over large areas of our country."

Smith[2] says: "We read our Statistics of the destruction wrought by the dreaded tuberculosis and pneumonia, etc., but we have here a disease which is literally sapping the life blood of the South."

Dr. Smith in the same article, says: "While it is deplorable that child labor is not better controlled, and while I believe in giving the devil his dues, yet we should at the same time be just, for, no doubt many of the cases of children, whose lives are blighted in the cotton mills, were blighted before they went there, and the confinement and tedious work but assisting in the destruction already begun."

Stiles[3] says: "Speaking in general terms, however, the facts at my disposal at present seem to indicate that, taking the South Atlantic States as a whole, Uncinariasis must be considered as one of the most common and widespread maladies: in frequency it belongs in the general class with Malaria, Tuberculosis and Gonorrhœa."

The article by Stiles which appeared in the September and October numbers of this Journal for 1903 upon this subject, is exhaustively worked out and should be carefully read and studied by every physician in the United States. By these studies of Stiles, which were the result of observation after years of work in this line, on the ground, in the Southern States, we have the description and knowledge of the Uncinaria Americana (Stiles) found in the Southern States, a form of the paracite different somewhat from the Hook Worm of the old world.

1 Henry B. Ward, Ph.D., Lincoln, Neb. "Precision in the Determination of Human Paracite." Read at the 54th meeting of the American Medical Association, Journal Am. Medical Association, Sept. 19, 1903.

2 Claud A. Smith, M. D., Atlanta, Ga. "Uncinariasis in the South." Read before the 54th meeting of the American Medical Association, Journal Am. Medical Association, Sept. 19, 1903.

3 Ch. Wardel Stiles, Ph.D., Chief of Division of Zoology, Hygienic Laboratory U. S. Public Health and Marine Service. "The Significance of the recently recognized American Hook-Worm Disease for the North Carolina Practitioner." Charlotte Medical Journal for Sept. and Oct., 1903.

Stiles observed that the disease is prevalent among residents, or, those who have resided in sandy districts, and practically absent in residents of clay sections.

Ashford and King,[4] who have studied in Porto Rico, find the opposite. They find the cases in the "Mountain Sections of Redish Yellow Clay." The sandy lowlands have comparatively less cases.

The mode of reaching the alimentary canal of the host is somewhat a conjecture.

Looss (1901), Bently and Smith, consider that the larvæ pass in through the skin during the condition known as ground itch, which appears in the summer season and affects the feet, legs or arms.

Stiles admits the possibility of such an avenue for its entrance into its host, but considers the introduction through dirt in food and by drinking water, as the more probable source of the affection.

The latter is undoubtedly the plausible or natural means, or route by which the larvæ gains entrance into the individual, since the worm is found as the inhabitant of the alimentary canal of the infected individual, and not of muscles and other parts.

Let the medical press give this matter the publicity which its serious nature deserves, and any practitioner or worker in this line having any experience with cases of this disease, and who recognize any new characteristics of this paracite give publicity of such facts that the medical profession of our country, and especially those members located and practicing in the Southern States may learn, so that the disease may be fully understood and readily recognized.

4 Ashford and King, "Uncinariasis in Porto Rico." American Medicine, Sept. 12, 1903.

HOME TREATMENT OF CONSUMPTION.

One of the most valuable contributions in our literature in this conflict which is being waged against the enemy of mankind—Consumption is the address made by Dr. Wm. Ossler on Dec. 3, 1903, in the Witherspoon building, Philadelphia, under the auspices of and provided by the Henry Phipps Institute for the study, treatment and prevention of tuberculosis. Dr. Ossler's theme was "The Home in its Relation to the Tuberculosis Problem."

This is especially an important calculation which must be taken into consideration and be worked out in the general crusade against this grim monster, especially since it is recognized as Dr. Ossler states, that ninety eight percent of the sufferers by this disease must be treated at their home. This very large proportion cannot avail themselves of treatment in a sanitorium, in some highly elevated or favored locality, a measure which is just now very popular and receiving the earnest study and consideration of almost every worker and student in this subject.

The large number who must depend upon the resources which may be utilized in their homes will be much benefitted and aided by the influence and guidance of the thoughts and light brought out by this address of Dr. Ossler. The points brought out by this lecture cannot but exert a wide influence upon the members of our profession wherever it is read.

The large number of those affected by tuberculosis must depend upon the family physician or general practitioner for the early detection in each individual case of this disease, for which they may receive any treatment or care, whether at their home or in a sanitorium.

Besides, this very large percentage of cases will be forced to depend upon the general practitioner for their care and treatment, and their home and its enviroments with what advantages can be devised thereat, will be the only sanitorium which will be available for their accomodation, since many will not be able, through financial and other reasons to leave their home to go to any special locality. Many families need the aid and guidance of either head of the family who may become infected and so provisions must be contrived under which the patient may be cared for and treated at his or her home, so as to get as much of the conditions of a special sanitorium life as it is possible to secure; and the family must be protected from the danger of infection during the existence of such conditions in the individual.

The sanitarium, while it serves as a refuge and salvation to those who can avail themselves of its blessings, also becomes a useful and important factor in a direct way in state medicine by serving as an educator to the masses who are not able to accept its advantages and to the unaffected, in showing what may be accomplished, and inculcating the forces which may be put to work toward clearing the human family of the disease. It will show to those affected and those liable, what may be achieved, and encourage them to work and hope for freedom from the disease. Dr. Ossler in his Practice of Medicine, edition of 1902, in the treatment of tuberculosis says: In a majority of cases the patient has to be cared for at his home, and if in the city, under many disadvantageous circumstances. Much however may be done in cities to promote arrest by insisting upon plenty of fresh air."

Dr. Tyson in his Practice of Medicine, edition of 1903, says: "The usefulness of sanitoria for consumption has of late been

conclusively demonstrated. * * * The key note of success in them is the stringent hygienic and open air life."

A very important factor in this crusade against consumption, if it be possible, would be the inauguration throughout the union, of just such courses of lectures as the Henry Phipps Institute has arranged and carried through, so that the mass of general practitioners may become thoroughly imbued with the spirit of warfare and be equipped in the methods of procedure in careing for the disease under all circumstances. As it is well expressed editorialy in "American Medicine" for Dec. 19, 1903, "The general practitioner is after all, the 'man behind the gun.' Upon him must be impressed two things: 1. The early recognition of the disease by better attention to the principles of practice and more care in diagnosis. 2. More masterful management of early cases, home treatment by modern means must be carried out, not only in cities, but in suburbs, in towns and in the country.

HEALTH OFFICER ASSAULTED.

Dr. Thos. S. Faucette, of Burlington, N. C., the efficient superintendent of the Board of Health, of Alamance County, was assaulted and seriously injured on Jan. 9, 1904, at Haw River, while inquiring into the sanitary conditions and inspecting the disinfection of houses there which had contained smallpox patients.

Haw River is a large mill town and the majority of its inhabitants are mill operatives who are said to be of a very ignorant class.

There seems to be every where a prejudice against health officials especially when they concern themselves about quarantine and other necessary regulations which tend to control the spread of contagious diseases especially that of smallpox. This feeling is not confined to the ignorant classes, but many of our most intelligent people have wrong ideas about this subject. They will believe everything that their physician tells them except the value of vaccination. If the public was as anxious and made as great an effort to prevent diseases of this kind and to enforce sanitary regulations which tend to stop epidemics as the medical profession is it would be very much better for every class of our citizens.

THE TRI-STATE MEDICAL ASSOCIATION.

The Tri-State Medical Association of the Carolinas and Virginia held its sixth annual session at Danville, Va., Feb. 23 and 24. It was a very important and interesting meeting for this Association. The papers read were interesting and instructive and from a literary standpoint of a very high order. Dr. W. L. Robinson was Chairman of the Committee of arrangements and through his directions the visiting physicians were most charmingly entertained. To mention the papers that were of especial value would include the entire programme.

The next meeting will be held in Greensboro, N. C., some time in February, 1905, the exact date will be later determined, The president for the new year is Dr. W. L. Robinson, of Danville, Va.; the Secretary and Treasurer Dr. R. E. Hughes, Laurens, S. C.

DR. BRAWLEY.

Doctor R. V. Brawley has located in Salisbury, N. C., to practice his specialty, Eye, Ear, Nose and Throat diseases. He begins his work in this State with the prestige of two years' study with Knapp, and a year's service on the staff of the New York Eye, Ear, Nose and Throat Hospital. Personally he is a gentleman of agreeable manners and good habits, of untiring energy and zeal, and we predict for him a successful career.

MR. EDITOR:

In all kindness to the Tri-State Medical Society, I desire to say just a few things: For two days I attended the society and accepted their courtesies and kindnesses, and, therefore, anything said only in kindness would be unpardonable. I want to say that I was greatly pleased with what I saw and heard. I am decidedly of the opinion that it is a most splendid society, and composed of the best talent of the combined States. The papers were of high order and every member should and will be proud of them. What I especially want to say is that the specialists had well prepared and worthy papers along their several lines, embracing capital operations beyond the work of a great many men in the three States. These men, to a very great degree, are dependent upon the rank and file of the general practitioners, or more especially a man who follows general medicine and diseases of children. There was very little, indeed, to meet my desires had I been a member. I did not join mainly on this account. So, in all kindness to the society, let me suggest that an effort be made to induce men to write papers, at most half, and at least one-third of all papers should pertain to general medicine—therapeutics and diseases of children—keep up their standard of papers read, and with the suggestion heeded you can well be proud of the society. The hospitalities and kindnesses of the people and physicians of Danville were of the

highest order and most thoroughly appreciated by us all. I may (with the consent of the members) attend the meeting a year hence in Greensboro, and then, if this suggestion is taken and acted on in good faith, and you will admit me as a member, I will gladly join and do my best to help in building up and maintaining one of the best societies which is accessible to us. I extend my individual thanks to each and every member of the Tri-State Society for kindnesses and favors during your meetings.

I. W. Faison.

Charlotte, N. C., Feb. 26, 1904.

Book Notices.

Transactions of the Medical Society of the State of North Carolina, 1903.

This large volume of transactions comes to us this year carefully edited and beautifully and substancially bound. Its six-hundred pages of reading matter with its illustrations is a record of the medical advancement in this State during last year. It shows on examination the high character of the scientific work presented at the Hot Springs meeting of the Society. The papers are numerous and cover quite a varied field, they reveal a large amount of original investigation and scientific preparation.

It was an excellent idea, conceived by our Secretary, to have the photograph of the President, Dr. Knox, printed opposite the title page. There is a great deal of precedent for this, besides it is good taste.

The volume contains the constitution and by-laws of the Society as revised at the Hot Springs meeting, the principles of ethics, the medical laws of North Carolina, the rules governing the State Board of Medical Examiners and a directory of the members of the Society, the college and date of their graduation, when they received their license and when they joined the Society.

Taking everything into consideration this is the most complete volume of transactions that the members of the Society have ever received. Mention of the articles worthy of attention would be practically giving a list of contents, many of them have already been published in the journal. We commend the work done by our efficient Secretary, Dr. Way.

The Neurological Practice of Medicine. A Cursory Course of Selected Lectures in Neurology, Neuriatry, Psychology, and Psychiatry; Applicable to General and Special Practice. With 177 illustrations. After the Author's Class Room Methods as a Teacher of Students. Designed for Students and General Practitioners of Medicine and Surgery. By Charles H. Hughes, M.D., President of the Faculty and Professor of Neurology, Psychiatry, and Electrotherapy, Barnes Medical College. Former Major and Surgeon in Chief of Schofield, Winter, Hickory Street, and McDowell's College Military Hospitals, Superintendent Missouri State Insane Hospital, Acting and Honorary Member of Many Home and Foreign Medical and Scientific Societies, Etc. Member Governing Board of Centenary Hospital, ex-member Board of Health, and Consultant of City Hospital, Insane Hospital, Etc. 8vo, cloth; 415 pages. Price, $3. Hughes & Co., 418 N. Third Street, St. Louis, Publishers, 1903.

The Neurological Practice of Medicine is a cursory course of selected lectures, from an eminent source of clinical and lecturing experience, on the essential features of neurology, neuriatry, psychology, and psychiatry applicable to the general and special practice of medicine. The book is plainly and forcefully written in the author's well-known, impressive and succinct style. Many of the pages of the book are peculiarly fascinating and eloquent, as well as accurately descriptive and scientific.

The style of the author in the amphitheater reappears in this remarkable book, as those who have sat under his clear and original teachings will discover in the reading of the several chapters.

The fruitful results of thirty years of extensive clinical experience over a portion of the vast fields of neurology and psychiatry are presented in this valuable book.

The psychiatric factor in surgical and medical practice, psychical depression and the neuropathic diathesis, post-operative insanity, etc., are some of the other and many remarkable features of this remarkable book, from a remarkable source of extensive and broad clinical observation and experience, reaching over a third of a century of constant, varied, and wide medical practice, giving aspects of medical observations and reasoning from the neuro-anatomical, neuro-psychological, and neuro- and psycho-therapeutical side of medical observation, that is coming rapidly under the consideration of the profession and destined to prominently prevail in the future practice of medicine.

The Story of New Zealand, by Prof. Frank Parsons, the well-known writer and authority on law, economics and sociology; edited and published by C. F. Taylor, M.D.; editor and publisher of the Medical World, and "Equity Series," 1520 Chestnut street, Philadelphia, Pa. Handsomely bound in cloth, fine, heavy

paper, over 170 illustrations, many of which are full pages. 836 xxvi—360 pages; price $3 net.

"The direct historic review occupies 500 pages, illuminated by more than 100 illustrations (there are over 170 pictures in the whole book) and grouped in 72 chapters. After this the principles involved in New Zealand's progress are gathered into one section, and the birthdays of progress tabulated. Then the principal services rendered by the People's Trust, Civic Fraternity, or Co-operative Industrio-political Combine called "The Government," are summarized, the conservative view of the Liberal Movement is developed and prevalent misstatements and misapprehensions are cleared up."

This is enough from the circular review to give the reader a partial idea of the scope and comprehensiveness of this great work. It is a book that should be closely studied by every patriotic citizen of this country, for it would inspire him with a reformatory zeal that would express itself in all his public relationships, and it would make him one of the millions who would vote right in peoples' conventions, and at the polls. The book deserves much praise. It is a noble work, and should be in the library of every one.

Diseases of the Urinary Organs, including Diabetes Millitus and Insipidus. By Clifford Mitchell, A. B., M. D., Professor of Renal Diseases in the Chicago Homœopathic Medical College. Urologist to the Chicago Laboratory for Clinical Diagnosis. Illustrated. 716 pages. Linen, $4.00 net. Postage, 30 cents. Philadelphia: Boericke & Tafel. 1903.

Dr. Mitchell has for many years taken high rank among the specialists, in diseases of the urinary apparatus, and his frequent contributions to this subject have proved helpful to every physician who has read them. The present volume will be cordially received by the profession.

The volume at hand constitutes a thorough review of the diseases of the kidneys, ureters, bladder, prostate and urethra, with a careful study of diabetes mellitus and insipidus. It is written for the general practitioner's use, with a clear understanding of his needs, and the latter, in these days of intense activity, are manifold. The treatment of the various special types of disease here considered is that of a modern text book, paying due attention to modern methods of diagnosis and modern views on the pathology of the organs affected. The claims of surgery as a beneficent agent in the serious lesions of the urinary organs are freely acknowledged, and operative measures are discussed fully where they have proved actually helpful. Under the head of "Treatment," Dr. Mitchell's liberality should please the great majority of intelligent readers, since it embraces "almost everything recommended by earnest and reliable workers in the field of internal medicine." In the writer's opinion the special value of the work, to the practitioner, depends upon the thoroughness with which the diet and the climatic and hygienic treatment are given.

The book will beyond doubt prove a valuable acquisition to the medical library.

The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editoral comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes. Volume I, including General Medicine. Octavo, 673 pages, fully illustrated; Volume II, General Surgery. Octavo, 680 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

The American Year-Book of Medicine and Surgery continues to maintain its high place among works of its class. Indeed, the issue of 1904, now before us, if anything, is even better than the excellent issues of previous years. Such a distinguished corps of collaborators which the editor, Dr. George M. Gould, has enlisted as his assistants is sufficient guarantee that the essential points of progress are brought out, and the collaborators' notes and commentations are excellent. In the illustrative feature the 1904 issue fully maintains its reputation, there being fourteen full-page insert plates, beside a number of excellent text-cuts. We pronounce Saunders' Year-Book for 1904 the best work of its kind on the market, as it has always been.

Organic and Physiologic Chemistry: A Manual for Students and Practitioners. By Alexius McGlannan, M.D., Associate Professor of Physiologic Chemistry, Instructor in Clinical Laboratory, College of Physicians and Surgeons, Baltimore, Md. Illustrated with nine engravings. Lea Brothers & Co., Philadelphia and New York.

The Medical Epitome Series edited by Dr. V. C. Pedersen, are of great practical

value to the student and the general practitioner who wants to brush up occasionally. The questions are placed at the end of each chapter which will be preferred by some. The present manual has been done in a style facilitating comprehension and recollection. Brevity and clearness are important factors in such work, and the author has the ability required to bring these out to advantage.

The Practical Medicine Series of Year Books, Comprising Ten Volumes, on The Year's Progress in Medicine and Surgery, issued monthly under the general editorial charge of G. P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post Graduate Medical Schools Volume III: Eye, edited by Casey A. Wood, M.D., Ear, edited by Albert H. Andrews, M.D.; Nose and Throat, edited by Gustavus P. Head, M.D
The Year Book Publishers, 40 Dearborn street, Chicago. Price of Series, $7.50. Price Vol. III, $1.00.

This book contains 320 pages with something of interest on every page and will be a valuable addition to the library of any physician. Deserving special mention in the eye department is the chapter on the treatment of Trachoma and the chapter on ocular therapeutics.

The suppurative inflamations of the middle ear and their complications take up the greater part of the ear department and form some very interesting and instructive reading.

The last part of the book is devoted to the nose and throat and among others the chapters on various forms of rhinitis and hay fever will prove interesting reading.

No preceding volume of this series is more valuable or interesting to general practitioners than this one.

A Manual of Electro-Static Modes of Application, therapeutics, Radiography and Radiotherapy. (Second Edition.) By William Benham Snow, M.D., Professor of Electro-Therapeutics and Radiotherapy in the New York School of Physical Therapeutics, editor of the Journal of Advanced Therapeutics, etc. New York: A. L. Chatterton & Co.

This is the second edition of this most excellent work. The prominence given to the static machine and its practical applications gives a certain preeminence to this work and value not found in other books on the subject. The first seventeen chapters discuss the electro-static modes of application and therapeutics. The first ten of these treat of the machines, the general principles, and their care and management, together with the physiological action of the various static currents. The remaining seven chapters give a very clear summary of the therapeutics and uses to which these currents can be applied in inflammatory conditions, painful neurosis, palsies, disease of the skin and general organic changes. Section second of this work contains five chapters on Skiagraphy, giving all the essential facts for the use of the X-ray, also in photographing the conditions which this marvelous light reveals. The last part of the volume contains six chapters on Radiotherapy. This is equally interesting and contains many very valuable facts which every electrician, or person who uses any form of electricity, should be glad to know. The book is profusely illustrated with thirteen large plates and nearly a hundred cuts showing the method and apparatus as well as the form of administration. The author makes it very clear that the use of electricity can only be successful in the hands of persons who are familiar with the physiology and method of applying this new therapeutic agent. Every institution where the static machine is used should have this volume as a text-book and manual, for the proper understanding of many of the mysteries which are associated with the use of this agent. Up to the present time there are very strong indications that it will become a very prominent agent in the near future in the treatment of spirit and drug psychosis. Already one article has appeared extolling its advantages in morphia cases. But one of the great difficulties at present seems to be the want of knowledge concerning the physics of electricity, and the technique of its application. The author deserves the warmest thanks for his contributions in this direction.

A Reference Handbook of the Medical Sciences. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. A new edition, completely revised and rewritten. Edited by Albert H. Buck, M. D., New York City. Volume VII. Illustrated by cromolithographs and six hundred and eighty-eight half-tone and wood engravings. New York: William Wood & Co. MDCCCCIV.

The seventh volume of the Reference Handbook of Medical Sciences is a delight to the man of science, to the busy practitioner, and to the lover of useful books. It begins with Saccharin and ends with the 17-page article on Ulcers and Ulceration, the latter article alone being illustrated with ten photo engravures. As an illustration of the completeness of the work, the subject on sarcoma covers eight pages

and has eighty microscopic slide illustrations. Scarlet fever embraces twenty-four pages, Sewerage and Sewerage Disposal eight pages and Sexual Organs twenty-seven and a half pages and ninety-three illustrations. Smallpox covers ten pages, Spinal Cord and Its Diseases ninety-five pages, Stomach Diseases sixty-eight and a half pages, Syphilis thirty-three pages, Tuberculosis eighteen pages and typhoid fever twenty-four pages, all of these being illustrated with excellent drawings, photo-engravures and colored plates. Each article has been revised and brought up to date, and many new subjects introduced. The list of contributors includes Drs. S. W. Abbott, C. W. Allen, J. E. Atkins, F. Baker, H. W. Beatman, W. A. Bastedo, R. P. Biglow, L. V. Bulkley, S. S. Cohen, W. T. Councilman, J. C. DeCosta, D. B. Delavan, J. M. French, P. F. Eve, J. N. Hide, M. Ladd, F. P. Mall, A. P. Ohlmacher, Roswell Park, M. A. Starr, G. M. Sternberg and many other of the most distinguished scientists and physicians in the country. It is a complete library in itself, with the additional advantage that the subjects are in alphabetical order, thus making it of easy reference. Physicians who desire a ready reference library cannot afford to be without it.

It is invaluable. The writers who contribute to these volumes are scientific men and teachers of experience. It is only possible here to direct attention to the work. It would be impossible to mention all of its superior features or attempt to describe it.

The Practical Care of the Baby. By Theron Wendell Kilmer, M. D. Associate Professor of Diseases of Children in the New York School of Clinical Medicine; Physician to the Out-Patient Department of the Babies' Hospital, New York; Attending physician to the Children's Department of the West Side German Dispensary, New York. 12mo. Pages xiv-158, with 68 illustrations. Extra Cloth, $1.00 net, delivered. F. A. Davis Company, 1914-16 Cherry Street, Philadelphia, publishers.

We find on our table this little book neatly bound in cloth and printed on the best of paper.

We have carefully scanned it through and heartily commend it as a very valuable work. It simply goes into all the minutia of caring for the baby. The author has covered the entire subject, fully and closely.

Every mother and nurse should have and carefully read this little work. In the 158 pages and the 68 illustrations the whole matter of caring for the baby is made so clear and plain that any mother can fully understand its teachings. Its very cheapness should ensure many editions of this valuable work.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall, A. B., M. D., formerly Professor of Physiology in the Memphis Hospital Medical College. Chicago, Marsh & Grant Company, Publishers.

The writer has avoided theoretical discussion, and has endeavored, in this little book, to give a plain, practical and concise summary of the methods and results of the non-surgical treatment of diseases of the prostate gland and their sequelæ as demonstrated by more than twenty years of clinical experience. Some of the matter has been heretofore published in various medical journals. It is an intensely interesting book, and is one that will appeal to every physician who has to deal with troubles of this important organ. We recommend it.

The Pathogenic Microbes, by M. Le Dr. P. Joussett, physician to the Hospital St. Jacques, Paris. Authorized translation by Horace P. Holmes, M. D.; 192 pages. Cloth, $1 00. Postage, 8 cents. Philadelphia, Boericke & Tafel, 1903.

I have read this work with much interest because it represents the best and latest affirmative thought on the subject. The writer displaces some old conclusions, and bravely substitutes new and more plausible ones. The author is a keen logician, and his argumentative ingenuity and literary elegance cannot be too highly praised. It will well repay any physician to carefully study this latest exposition of serum-therapy conclusions.

How to be successful as a Physician. Heart-to-Heart Talks of a successful Physician with his Brother Practitioners. Pages, 123. Price, Cloth, $.50; Paper, $.35. Church Publishing Co., Meriden, Conn., Publishers.

We have always had a notion that there could be no set rules for success in anything. Success, like many other things very well worth having, depends somewhat largely on circumstances that are not under individual control; and medical success, like other brands, is somewhat elusive as to definition. The writer of this book conceals his identity, but it is supposed that he is a physician. He takes some pains to define success, but does not give us an infallible recipe for securing it. There are a number of general comments on the deportment of a physician in relation to his fellow practitioners and his patients that have sound, solid sense in them; but the book

does not by any means bear out the promise of its title.

Fischer—Infant-Feeding in its Relation to Health and Disease. A Modern Book on all methods of feeding. For students, practitioners, and nurses. By Louis Fischer, M. D., Visiting Physician to the Willard Parker and Riverside Hospitals, of New York City; Attending Physician to the Children's Service of the New York German Poliklinik; Former Instructor in Diseases of Children at the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy of Medicine, etc. Third edition, thoroughly revised and largely rewritten. Containing 54 illustrations, with 24 charts and tables, mostly original. 357 pages, $5\frac{3}{4}$ x $8\frac{3}{4}$ inches. Neatly bound in extra cloth. Price, $2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia, Pa.

This book has been completely revised, in fact almost entirely re-written. Many changes were deemed necessary to aid the General Practitioner in working formula required for home modification of milk.

A new chapter entitled "Milk Idiosyncrasies in Children," showing how children are fed who cannot tolerate milk. He has added a new chapter entitled, Buttermilk feeding. This method of feeding is in vogue in a great many foundling asylums. The book has an interesting chapter on Scurvy. He has enlarged and almost entirely rewritten the dietary for older children. The method for feeding children in certain diseases, especially diphtheria, is very interesting and has also been almost completely re-written. How to feed children afflicted with cleft palate is fully described in the third edition of this book. The author believes that accuracy at the laboratory plus clean utensils is a necessity in modified milk feeding.

Dr. Fischer's many years experience as a teacher in the largest Childrens Clinic in this country has given him ample opportunity to study the problems of infant feeding. While lecturing in Post-Graduate Medical Schools of New York he was convinced of the need among the general practitioners of a book like this. The book is one of immense value and every practitioner should add it to his library.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners. By leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, Pa., with the Collaboration of Wm. Osler, M. D., John H. Musser, M. D., Jas. Stewart, M. D., J. B. Murphy, M. D., A. McPhedran, M. D., Thos. M. Rotch, M. D., John G. Clark, M. D., James J. Walsh, M. D., J. W. Ballantyne, M. D., John Harold, M. D., Edmund Landolt, M. D., Richard Kretz, M. D., with Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume IV. Thirteenth Series, 1904. Philadelphia, J. B. Lippincott Co., 1904. Pages, 304. Price, Cloth, $2.00, net.

This volume closes a series which has been unusually important and instructive, owing to the large number of results which individual research has brought forth in the past twelve months. There is much that is practical and of immediate use in the contributions of this book, which have been made by some of the best known of our modern practitioners. Dr. Louis Julien, of Paris, whose experience in St. Lazare hospital has given him unsurpassed opportunities for clinical material, writes of the use of subcutaneous injections of mercury for syphilis, and gives some striking results of his treatment. For some time Dr. Julien has defended the use of injections of calomel in conjunction with mercury in syphilitic treatment and he now takes his stand more firmly than ever on this important matter.

Dr. Louis Faugeres Bishos contributes another practical paper on the clinical manifestations and treatment of chronic nephritis, and in collaboration with Dr. DaCosta, his co-worker in the department of surgery in the Jefferson Medical College of Philadelphia, Dr. Wm. W. Keen reports a case of interilio - abdominal amputation for sarcoma of the ilium, together with a synopsis of previously reported cases. Dr. Francis H. Davenport, whose works on gynecology are very well known, describes the non surgical treatment of displacements of the uterus, and the department of neurology is enriched by a contribution from Dr. Alexander James, on "Hemiplegia." The interest recently evoked and still active in the Lorenz operations is recalled strongly by Dr. John Lincoln Porter's paper on orthopedic work, and some clinical material of value is found in the department of ophthalmology. Under the head of pathology, Dr. Joseph McFarland discusses the present state of our knowledge of immunity.

A number of well executed illustrations embellish the pages, and a complete gen-

eral index to authors and subjects is found in the back of the book. We can conscientiously congratulate Dr. Kelly on his achievement in making a very successful number of the closing volume of the thirteenth series, and shall watch with interest for the next quarterly issue of the books. The publishers deserve congratulations as well.

The Complete Medical Pocket-Formulary and Physician's Vade-Mecum: Containing upward of 2500 prescriptions, collected from the practice of physicians and surgeons of experience, American and foreign, arranged for ready reference under an alphabetical list of diseases; also a special list of new drugs, with their dosage, solubilities, and Therapeutical applications; together with a table of formulae for suppositories; a table of formulae for hypodermic medication; a list of drugs for inhalation; a table of poisons, with their antidotes; a posological table; a list of incompatibles; a table of metric equivalents; a brief account of external antipyretics, disinfectants, medical thermometry, the urinary tests; and much other useful information. Collated for the use of practitioners by J. C. Wilson. A.M., M.D., Physician to the German Hospital, Philadelphia, etc., etc. Third revised edition. Price $1.75; thumb indexed, $2. J. B. Lippincott Company, Philadelphia.

Clinical Treatise on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Dr. Carl von Noorden, Physician in Chief to the City Hospital, Frankfort, A. M. Authorized American Edition Translated under the direction of Boardman Reed, M. D., Prof. of Diseases of the Gastro-Intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College; Physician to the Samaritan Hospital, Philadelphia, etc. Part IV the Acid Autointoxications by Prof. Dr. Carl von Noorden and Dr. Mohr. New York. E. B. Treat & Co. 1903.

Prof. von Noorden's studies into these derangements of metabolism which result in an over production of acid, thus endangering the proper degree of alkalinity of the blood, may seem at first more obstruse and of less utility than the subjects of the previous volumes in this interesting series, but in reality they concern the clinician very nearly; moreover, they are in a field which has hitherto been too little explored. French investigators have until recently done most work here. The Germans as the writer concedes have been at first sceptical regarding the whole doctoring of autointoxication, but since becoming convinced of its truth, they are studying the subject with their accustomed thoroughness. The authors researches into it have been particularly valuable.

Physicians who treat chronic diseases successfully, must keep a close and intelligent watch upon the digestion, excretion and assimilation of their patients. He believes that there are numerous forms of manifestations of self-poisoning, that the acid forms are among the gravest of them and that those special perversions of metabolism resulting in excessive production of oxybutyric acid, diacetic acid and acetone, which so often complicate diseases are of the utmost practical importance. The book is indeed an interesting one. One that every physician should read. It is a small book of 80 pages, well printed and nicely bound. Price fifty cents.

A Text Book of Organic Chemistry. By William A. Noyes, Professor of Chemistry in the Rose Polytechnic Institute. Henry Holt & Company, New York. 1903.

This book has been written to present the fundamental principles of organic chemistry for the use of those beginning the subject. While the amount of information given here is small in comparison with that to be found in large text books, the reader will find many details which it is impossible for the most conscientious student to permanently retain in his memory. The student is, however, advised to read all of the book as well as to thoroughly master by careful study some portions of it. The attentive reader will by these means gradually absorb many ideas by a process which is closely akin to the acquisition of a language by a child. The book is an interesting one, well written and admirably suitable for the purpose for which it was written. It contains 535 pages.

The Practical Medicine Series of Year Books comprising ten volumes on the year's progress in medicine and surgery issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume II, General Surgery edited by John B. Murphy, M. D., Professor of Surgery, Northwestern University Medical School. November 1903. The Yearbook Publishers, 40 Dearborn Street, Chicago.

The same general plan has been adopted in this volume that was pursued last year and which was so satisfactory to the general

reader. Dr. Murphy has given especial attention to surgery of the stomach and prostate. These are subjects that are attracting a great deal of attention now in the medical world. Many operations which were formally tentative have been placed in a class of recognized surgical procedures on account of the large percentage of results secured and the small mortality. Among them is gastroenterostomy—he has given especial attention to this subject. The writer discusses surgery from a prophylactic standpoint which is possibly the most interesting chapter of it all. The book contains 556 pages and is nicely bound. Every practitioner of medicine thould subscribe to this series of books which are issued monthly.

Literary Notices.

March Lippincott's Magazine.—The strongest magazine novel of the month is by all odds that published in Lippincott's called "A Provident Woman." This is written by Neith Boyce, author of "The Forerunner," and it opens in a New York business office at a critical time for Cecilia Clayber. Her beauty and undeviating calmness in all circumstances so compel the admiration of her employer, Frederick Hawley, widower and millionaire merchant, that he asks her to become his wife. His doctor has imparted to him the information that he may drop dead at any time, which news naturally shatters his nerves and makes him feel that Cecilia is a veritable rock on which to lean. She accepts her new role characteristically and they spend the honeymoon in Europe. There had been a budding love-affair between Cecilia and one of her mother's boarders, and when she returns to New York the erstwhile lover reappears under other conditions which add zest to the tale.

The March number contains eight short stories. Baroness von Hutten has never been more charming than in her contribution entitled "According to Lady Moyle; About Jessica Winnock." "Mrs. McOstrich Gives a Party," by J. J. Bell, equals in humor—and perhaps surpasses—anything which has yet been told about "Wee Macgreegor." Pathos of the very best sort may be confidently expected from Jennette Lee, and her story, "A Court Lady," is a bit of touching realism. "Blessing the Typewriter" is a strikingly original love-story with a distinctly Bohemian flavor in the ceremony *a deux*. The author is Eleanor Hallowell. Paul Laurance Dunbar contributes "The Vindication of Jared Hargot," a tale with a sad threatening and happy ending quite worthy of so popular a pen as Dunbar's. Alison M. Lederer calls his admirable story of a coquette "The Strong and the Weak." "In the Private Car," by George Hyde Preston, is a unique and amusing romance of the Western plains and a girl's grit; and the number closes with a vivid sketch by Clifford Howard called "The Appointed Time."

Some happy memories of the late James McNeill Whistler are presented by Annulet Andrews in Story-form under the title of "Cousin Butterfly." A fac-simile note from Whistler adds much interest.

The verse of the month is both seasonable and beautiful from the pens of Clinton Scollard, Agnes Lee, Felix N. Gerson, Antony E. Anderson, Carrie B. Morgan, Katherine Lynch, and Richard Kirk.

The "Walnuts and Wine" department blooms anew this month with freshest jokes.

South America and the Panama Canal.—The great southern continent has been for almost a century vitally interested in the various projects to connect by a canal the Atlantic and Pacific oceans. But South America has comparatively few voices of public opinion, and it has been difficult to ascertain just what the consensus of opinion is among South Americans regarding the independence of Panama and the relations of the United States to the entire canal project.

The general tone of the South American press, in its comments, so far as can be ascertained, has been surprisingly mild and reasonable. Much bitter opposition to what has been termed "the Yankee policy of aggrandizement" might have been expected, especially in view of what we have been hearing in the past few years about North American insolence and the impertinence of the Monroe Doctrine. The present occasion might have been expected to figure as a sort of climax to Latin-American dislike for the United States.

The animosity of Latin America for Uncle Sam, however, has been a good deal stronger in the newspapers than in fact. The earliest comments on the independence of Panama and the canal treaty were very mild, but later there has appeared a spirit of animosity, aroused, no doubt, by the reports of opposition to the President in this country and the utterances of Senators and other public men on the "unjustifiable interference" of the United States. This later feeling has influenced most of the South American countries to refuse recognition to the new republic. Venezuela, Peru, Nicaragua, Guatemala, Costa Rica, and Cuba are the only Latin-American countries, so far, to extend such recognition. The canal will so plainly and largely benefit

the southern continent that it is not surprising to find so few expressions of fear or dislike toward our government for the part it has played in bringing about the present situation.—From "Latin-American Views of Panama and the Canal," by Louis E. Van Norman, in the American Monthly Review of Reviews for March.

Abstracts of the Leading Articles of the Month.

Treatment of Malignant Disease.

Lord (Med. Herald) after reviewing his experience says that all forms of superficial cancer can be most successfully treated by the X-rays. There is less liability to recurrence in cases so treated than with any other form of treatment. When necessary operations may be made less radical, and remaining disease destroyed by this agency.

All hopeless, operative cases, after partial excision, may sometimes be cured by supplementing the operative procedure with X-ray treatments, and thus reach tissues beyond the reach of successful surgery.

Much mutilation may sometimes be avoided, and better cosmetic results secured, by a combination of surgery and X-ray treatments.

Cancers which involve the eyelids, nose, ear, or other organs, the removal of any portion of which would disfigure, may be cured by the use of the X-ray without appreciable scar or blemish.

It is not necessary to cause a burn in order to secure the best results.

Malignant growths may be stimulated by an improper application of the X-ray.

Sarcoma is thought to be more amenable to treatment than carcinoma and hence may be treated through a greater depth of tissue than could carcinoma.

Very superficial carcinoma of the breast as seen in some very thin subjects, can probably be successfully treated just as the axillary glands can be in this same class of cases. (I have not had a case favorable to the adoption of this plan and have in every case excised the breast and used the X-ray subsequently. I have felt that any other course would involve a hazardous delay.)

Much inefficient and ill-directed work is being done because of ignorance of the proper use of the X-ray, and because of unsuitable apparatus together with the use of tubes not suited to the case in hand.

Ringworm of the Body.

Roussel (N. O. Med. and Surg. Jour.) believes that the domestic animals are the most common source of infection in ringworm. Horses and cattle which are allowed to roam in boggy pastures or housed in barns where they are subjected to the influence of fermenting droppings are very often affected with "pasture itch" or "barn itch." This is usually nothing but ringworm. Dogs, cats and swine infected with this parasitic disease are said to be "mangy." He believes that any drug that will produce an acute exfoliative dermatitis will in time effect a cure. Where the lesion is on the face or other exposed portions of the body lotions which do not discolor the skin are preferred. Among these the writer mentions sodium hyposulphite, 25 per cent, resorcin and salicylic acid in 5 to 10 per cent alcoholic solution, strong boric acid solution and biclorid of mercury solution, 1 to 3 grains to the ounce. Tincture of iodin is, however, the most generally satisfactory agent. The author recommends of the ointments those containing sulphur and betanaphthol, and the oleats of mercury and copper in strengths varying from 5 to 10 per cent. Of the physical agents he believes that the ultra violet ray in the presence of free oxygen is a certain means of destroying the ringworm fungus. One application of the light is quite often sufficient to effect a cure. In one case in particular, forty-eight hours after the application of the light for ten minutes, there was absolutely no evidence of the disease.

Differential Diagnosis Between Pulmonary Abscess and Sacculated Empyema.

L. Emmet Nolt (Archives of Pediatrics, January, 1904) gives the following points of differentiation:

Percussion gives no clue to the nature of the disease. In both pulmonary abscess and sacculated empyema we have more or less general dullness over the lobe with flatness over a somewhat limited area. Again the voice and breath sounds are practically identical in the two conditions. In both of my cases the presence of loud, coarse pleuritic friction sounds accompanying the signs on percussion and auscultation just mentioned are, I believe, of much importance. Such signs could hardly exist if the accumulation of pus were in the pleural cavity. Another point of some value is the difficulty of finding the pus with the exploring needle, or finding it at one time and later not finding it even when a puncture was made in the same intercostal space. This should be regarded that the pus is deep seated; not only must the needle be inserted in the same space but it must follow the same direction in order to find pus. An abscess the size of a hen's egg, situated somewhat deeply in the lung might easily be missed although a half dozen punctures were made into the lobe which contained it. A slight displace-

ment of the heart would be probable in nearly all cases of empyema unless the amount of pus is very small. Of course it would not be present in an abscess unless the amount of pus were large. This therefore could not be depended on as an absolute point of differentiation. A pulmonary abscess and a persistent or unresolved pneumonia may easily be confounded by physical signs. If an abscess exist, it is often in the centre of such a pneumonia consolidation.

Breathing and voice sounds over an abscess are feeble or absent while over an unresolved pneumonia they are usually bronchial in character though sometimes feeble in intensity.

The physical signs of abscess, therefore, are not very characteristic. Additional help may be obtained from the other symptoms, especially the presence of continued fever and high leucocytosis. Fever is more constant and altogether higher than is usual in an unresolved pneumonia.

Tuberculosis a Cause of Chronic Joint Affections.

Edsall and Levenson (Am. Jour. Med. Sciences) have been led by the work of Poncet and his pupils to investigate the possibility of certain cases of chronic rheumatism and arthritis deformans being tubercular in their origin. At first thought there seems to be little resemblance between joint tuberculosis and these diseases, but Poncet and others have pointed out certain suggestive facts: They have frequently observed the development of pulmonary or other clearly recognizable forms of tuberculosis in cases of chronic polyarthritis; in a number of cases they have noted the development of a condition that, clinically, was typical tuberculosis in one or two joints in subjects of so-called chronic rheumatism; in one instance the injection of fluid obtained by tapping such a joint produced tuberculosis in a guinea-pig; in several instances the injection of fluid or tissue from such joints, obtained post-mortem or though excision of the joint, produced tuberculosis in guinea-pigs; and, finally, Barjon and Berard and Destot, in a series of cases, secured skiagraphic pictures which they consider practically identical with those of tuberculosis of the epiphyses. He regards some of this evidence of doubtful value it is nevertheless suggestive. They have therefore made tuberculin tests upon eighteen cases of polyarthritis. Of these eight gave absolutely no reaction, three gave a doubtful reaction, and seven gave a distinct reaction. In most of the cases of authritis deformans there was no response and the results were much more positive in the cases of chronic rheumatism; in one the evidence of tuberculosis was very strong. An interesting feature was that glandular enlargement was present in all but one of the cases which showed a reaction, which also points toward tuberculosis. He is inclined to agree in the main with Poncet's conclusions.

Removal of Cystic Mammary Tumors by Forcible Massage.

Herbert Snow, in the British Medical Journal says that such operations are unnecessary, and that the patient can be relieved without any mutilation at all. The breasts of these patients are full of milk—not healthy milk, but a more or less decomposing product. This is quite apart from pregnancy, and many of the women are single, or have not borne a child for a long term of years; if this milk secretion is completely squeezed out, all the trouble at once vanishes. The first stage in these cystic troubles is a chronic inflammatory process, hardly causing any symptoms; 'mastitis' is the usual, though improper, term; when this has continued for an indefinite period, cysts are developed through the parenchyma; commonly one becomes larger than the rest. When ruptured, no inflammatory mischief follows, and there is no subsequent pain and suppuration. All that is required is to place the patient under anæsthesia; then to rupture the large cyst subcutaneously; lastly, to squeeze from the nipple the viscid yellow or greenish-black matter until no more can be expressed. The larger cyst usually ruptures without force; but continued pressure, exercised in various directions, is needed before the retained secretions can be evacuated completely. Subsequently, the organ is a little sore for a day or two; that disappears and no further treatment is required. It would of course be improper to resort to forcible massage, whenever there is reason to suspect any complications with malignancy, as by the common sequel of intra cystic vegetations, the so-called "duct-cancer," or by the other modes in which cancerous complications supervene. But sometimes the chronic mastitis or mazitis does not always pass into the comparatively innocuous "cystic degeneration," but many assume the far graver aspect of "cancer;" and as the immediate antecedents of both conditions are exactly identical, a careful diagnosis is always necessary.

Differential Diagnosis of Typhoid Fever in its Earliest Stages.

Rucker (Am. Jour. Med. Sc.) discusses this subject under the following heads:

1. There is no single symptom on which

alone an early diagnosis of typhoid fever can be made. It is only by careful consideration of the symptom-complex that a clinical diagnosis can be arrived at.

2. The most trustworthy, as well as the earliest, sign of typhoid fever is the presence in the circulating blood of the bacillus of Eberth.

3. The demonstration of the bacillus of Eberth in the blood is not beyond any fairly well-equipped laboratory.

4. The bacillus of Eberth is found in the feces later than in the blood, but with comparative ease. The presence of the bacillus typhosus in the feces is of great value as a corroborative sign.

5. The presence of the bacillus typhosus in the rose spots is a trustworthy sign, but has no advantages over the examination of the blood from other localities.

6. The serum reaction of Widal is seldom demonstrable during the earliest stages of tydhoid fever. It is of value only in the higher dilutions.

Physiologic or Functional Albuminuria.

S. West in the London Lancet, Jan. 16, 1904 concludes that albuminuria may occur as a transitory symptom in persons who, except for this condition, may be judged to be perfectly healthy, for they appear to be so at the time and may remain so.

But it may also occur in persons who, though they appear at the time to be healthy, develop signs of disease subsequently.

It is difficult to distinguish at a given time between those who will remain well and those who will not.

It is difficult to exclude for certain many of the pathologic causes to which the albumin might be due. In other words though there may be no proof that these causes are present, there is equally no proof that they are absent, and in some cases the result shows that they were not absent.

Speaking generally, the larger the amount of albumin in the urine and the longer it persists the greater the probability of some permanent disease.

Continued observation of these cases shows that the so called physiologic albuminuria does very appreciably increase the risk of life and that this risk grows rapidly with every year of age after 30 years.

As the result of the foregoing proposition we are led to the general conclusion that functional albuminuria is never, strictly speaking, physiologic at all, but that it is, on the contrary, always pathologic, though not necessarily renal.

Guaiacol Carbonate in the Treatment of Measles.

Paton in the London Lancet, Nov. 21, 1903, has used guaiacol carbonate in the treatment of measles. In treating ordinary bronchial catarrh the writer divides the cases into two groups—one in which there is fever, and the other which has no rise of temperature. For the first group, unless caused by influenza, guaiacol is a specific. For the catarrh without fever no specific exists. The action of the drug on a feverish bronchial attack is to lower the temperature rapidly and to reduce the case to one without fever. The success achieved in these catarrhal cases led to the trial of the remedy in measles. From the first the success with the remedy was marked. This was due to the complete suppression of the respiratory troubles; so that while the patients had measles, some very severely, with temperature running between 104 deg. and 105 deg., they had nothing else, and when the temperature fell to normal they were practically well. The treatment seems to have no modifying effect on the measles itself, but it eliminates the respiratory complications. The treatment is begun when the diagnosis is made, and the drug is continued in full doses until the temperature falls to normal, a reduced quantity being given for two days longer to make sure of the result. The adult dose of ten grains every three hours is proportionately reduced in children according to their age. It is easily administered to young children if given with an equal amount of powdered sugar.

The Mortality of Diphtheria Under Antitoxin Treatment in Private Practice.

Zahorsky in the Medical News, Dec. 5, 1903, says that he has long been convinced that the death-rate in private practice was much less than that reported by hospitals in the treatment of diphtheria. He has gathered the experience of a number of physicians in St. Louis during the past five years. The collective investigation of the American Pediatric Society gave a mortality of 13.7 per cent, but this was made soon after the introduction of antitoxin, when this remedy was largely in the experimental stage. Late reports of the health department of Chicago shows a mortality of 6.8 per cent. In the practice of St. Louis physicians the writer was able to gather 1610 cases with a mortality of 24, or a percentage of 1.5. In a study of the opinions of physicians who largely used antitoxin in the treatment of diphtheria, they have come to the conclusion that the average child who has reasonably good constitutional resistance should almost certainly recover if the antitoxin is administered early. Some of the mistakes which may end disastrously are a diagnosis of simple tonsillitis when in fact the patient

has a severe case of diphtheria, an insufficient dose of antitoxin, the use of a preparation too old or one made by an unreliable manufacturer, a diagnosis of simple laryngitis where the disease is a primary laryngeal diphtheria.

It is a good rule to inject antitoxin at once in every case where diphtheria cannot be certainly excluded. One physician who follows this rule has had only one death in five years, and this was attributed to the carelessness of the parents.

An Operation for Paralysis of the Upper Root of the Brachial Plexus.

Tubby (British Medical Journal.) Injuries to the upper root of the brachial plexus resulting in a paralysis of the muscles of the shoulder are usually due to injuries to the shoulder-joint and fractures of the clavicle. It also occurs as a birth palsy. The most serious loss of function is a failure of flexion of the arm at the elbow and an inability to abduct the shoulder. For the restoration of flexion at the elbow, the most convenient muscle is the triceps. Its outer head is so attached that it can be readily utilized for this purpose. As a rule there is a partial flexion at the elbow furnished by the extensor carpi radialis longior. In these cases an incision is made four to six inches long from the middle of the back of the upper arm downward and forward toward the front of the elbow, following the course of the musculospiral groove. The musculospiral nerve is then readily defined and drawn aside. The outer part of the triceps is then detached from its connection with the tendon above the olecranon and separated from the bone so as to leave it attached only at its upper extremity. The next stage is to clean the biceps muscle, after which an aperture is made in its lower part about two inches above the elbow, and the strip of the triceps is then drawn through the biceps from the back to the front. The elbow is then flexed. In two cases the power of voluntary flexion has returned in from four to six weeks. In the Erb-Duchenne type of paralysis, in which the shoulder muscles, bicepts, and supinator longus are involved in the paralysis, it is better to do the triceps transplantation first and later attempt the restoration of motion in the deltoid, which is a difficult problem.

In the first case he attempted to restore abduction to the shoulder by using the clavicular portion of the pectoralis major. In the second case, in addition to this he employed that part of the trapezius attached to the clavicle. In performing this operation an incision is made commencing one inch below the middle of the clavicle, passing outward to the tip of the acromion and then downward for three inches. A second incision is made from the tip of the acromion upward along the anterior margin of the trapezius. The portion of the pectoralis major arising from the clavicle is followed to its insertion in the humerus, where it is detached and freed far back toward the origin. The insertion of the trapezius into the clavicle is then separated. The clavicular portion of the pectotalis major is then brought upward so as to lie over the acromion process and pass downward toward the insertion of tne deltoid. It is well to fix a few of the fibers into the tip of the coronoid process so that the muscle may not slip downward. Into the upper portion of the transplanted pectoralis major the detached piece of the trapezius is implanted and joins it necessarily at an acute angle. This forms a new muscle composed of the conjoined clavicular part of the trapezious and of the pectoralis major. If the tongue of muscle so formed is long enough, it may be inserted directly into the deltoid, but if it is short it is advisable to cut through the fibers of the deltoid and to turn up as thick and as large a piece of the periosteum as possible and join this to the muscular tongue above mentioned. In the first case, in which the pectoralis major only was used, the patient regained some power of abducting the shoulder. In the case in which the trapezius and the pectoralis were used together the result was better. It is important in all grafting operations on muscles that they should not be put upon the stretch for at least a month, and after that they must be kept under control and only gradually allowed to perform their full function.

Opium in the Carditis of Children.

Morrison in Pediatrics reports a case *in extenso* in which considerable doses of morphine were given in a child of five years suffering from myocarditis. When the patient was admitted there was a loud systolic bruit at the apex, which obscured the first sound of the heart. There was a diastolic bruit at the apex. The pulse varied from 108 to 120. The range of temperature was from 99 deg. to 100 deg. The pulse rate was highest during the first month after admission, ranging from 130 to 150. after which it fell to an average of 120. The leading deteriorating factors in the case were found to be the continued restlessness and sleeplessness with the progressive dilatation of the heart. To meet these symptoms hypodermic injections of 1-200 grain of digitalin combined with 1-100 grain of strychnia and 1-16 grain of morphine were given. This was given

every four hours. The morphine was gradually increased until a half grain was given in twenty-four hours. The patient died four months after admission to the hospital. At the autopsy the heart was found adherent to the pericardium, the ventricles were dilated and hypertrophied, and there was atheroma of the orifices of the coronary arteries. There was a general pericardial and myocardial inflammation and proliferation.

He quotes Sturges to the effect that the easing of pain by local appliances, the procuring of sleep, and the local withdrawal of blood are important in overcoming the effects of cardiac dyspnea—all these measures are truly life-saving, but the course of the inflammation is little if at all affected by such means. Among the measures for combating the effects of carditis the writer believes that opium should have a prominent place, and he emphasizes the capacity of children for tolerating considerable doses of the drug under suitable circumstances.

Is an Eczema Ever Symptomatic?

Robinson (Clinical Journal, Dec. 2, 1903.) The varied aspect which an eczematous inflammation presents is such that it would be better if the term eczema were only used as an adjective. An eczematous inflammation of the skin is characterized by itching, infiltration, persistence, and a tendency to recur. The laity cling pertinaciously to the blood origin of all skin diseases, and it is a popular belief that eczema is only a symptom of a preexisting morbid state of the blood. Such preexisting morbid states are represented by tuberculosis, diabetes, and gout. It is clear that between tuberculosis and eczema there is a wide distinction, and under no circumstances can the constitutional reaction of tuberculosis be responsible for an eczema, though the tuberculous may have a poor nutrition and hence a vulnerable skin, which readily drifts into an eczematous condition. The eczemas associated with diabetes are purely local conditions brought about by the irritation of the saccharine fluid flowing over the skin. The question of gout in relation to eczema is a more difficult one, as such skin inflammations frequently occur in those who have a gouty tendency. The gouty inflammation, however, is sharp, sudden, and fugitive. The inflammation in eczema may be abrupt in its onset, but it is not a fugitive condition. The therapeutic argument against the theory that eczema is symptomatic of gout is shown by the administration of colchicum, which is so efficient in gouty joints, but is of no value in eczematous inflammations. Patients who suffer from eczema have an imperfectly functionating skin; it either sweats too much or too little, and its power of elimination is inadequate. This probably expresses the association between gout and eczema. The skin is one of the means by which effete matter is gotton rid of, and a failure in this respect will throw a greater amount of work upon the lungs and kidneys and hence lead to an attack of gout. The skin disturbance in such cases is therefore a cause of the gouty attack.

If the origin of eczema is believed to be external, the study of the causation of the disease is approached with greater ease, and there is more hope of success in the treatment. Local irritations play an important part in its production. The more the subject is investigated, the more certain it becomes that the disease is not dependent upon constitutional states—indeed, comparatively few diseases are born in the organism excepting those depending upon pathological conditions due to inevitable degeneration.

Some Observations on Retro-deviation of the Pregnant Uterus.

Poney's (Indian Medical Record) experience is that surgical treatment is not indicated even when on the first examination the uterus appears to be absolutely irreducible. Up to the present he has always been able to avid operative treatment. If firm adhesion exist there is usually sterility, owing to disease of the appendages. Rest in bed, with attention to micturition and defæcation, is usually sufficient. In every case attempts at reduction should be made every other day, or at longer intervals if the lower abdomen is tender after manipulation. The first attempt is seldom successful. The best position is the genu-pectoral, followed by Trendelenburg's position. In many cases women with preexisting retroversion go through pregnancy without bad symptoms. He draws the following conclusions:—(1) Simple retroversion of the uterus, if the cervix and appendages be healthy, offers only a slight hindrance to conception. (2) After delivery retroversion frequently recurs. (3) Pregnancy in a retro-deviated uterus frequently progresses normally without any need for interference. (4) In a small proportion of cases of pregnancy, with retrodeviation of the uterus, incarceration occurs. In these cases, however, reduction by the aid of properly applied manipulations is usually, if not always, possible. (5) To be successful it is essential to reduce the retro-deviated uterus patiently by successive manipulations. Trendelenburg's position appears to be the best, but in some cases the genu-pectoral or dorso-lumbar positions

are successful. (6) These manipulations are very well tolerated.

Elephantiasis and Its Treatment.

Elder (Edinburgh Medical Journal) reports a case of this disease. The condition which was considered elephantiasis had been noticed for fourteen or fifteen years. The patient had twice resided in Burmah. The last residence there had been seventeen or eighteen years ago. During her stay in India she had two attacks of "fever," and she suffered much from the bites of mosquitos. She did not notice the swelling in the limb till a few years after her return. During the early months and years of her illness she suffered much from feverish attacks, which at the time were believed to be influenza. These attacks occurred so often, however, that they were a little puzzling. They recurred some times at intervals of a month, and again a few months would sometimes pass without an attack. The attacks were far more frequent in the summer than in the winter. In later years the attacks became less frequent, but the limbs had gradually become more swollen. The patient was very uncomfortable in a hot atmosphere. She had a very distinct dislike of fish. Treatment was begun in March and continued till June. The patient was put to bed and given a light ordinary or convalescent diet. She was daily massaged, special attention being paid to the swollen limb. At first massage was given for a short time. Later it was prolonged. The constant current was also applied daily to the swollen limb, the poles being applied over the most swollen parts. The limb was also dut into an electric heat bath daily. General tonics were given internally, and medicinal treatment was varied as the patient's digestive symptoms required. After the massage was discontinued an elastic stocking was ordered. The limb which diminished to about the size of the normal one, has remained in practically the same condition since. No filaria could be found in the blood, but there was an increase of lymphocytes and a percentage increase of polymorphonuclear easinophiles. There was not much anæmia. The patient's digestive troubles were treated by washing out the stomach.

The Surgical Physiology of the Lymphatic System.

C. H. Mayo (Medical Record, Jan. 2, 1904) says that a study of the lymphatic system readily explains many normal physiological as well as pathological processes. The subject is deservedly receiving more attention from surgeons, who now generally recognize that aside from acting as the general absorbent system, it is constantly engaged in maintaining nutrition as well as defense against pathological processes. All tissues are provided with lymph vessels and glands in direct proportion to their exposure, activity, and necessity for repair. The tissues of the body are constantly bathed in lymph, which fluid, similar to and derived from the blood plasma, must all pass through the lymph vessels and glands. In the glands the lymph is exposed to the direct action of the leucocytes, which are there found in great abundance. It is in the gland that infection is checked and destroyed, or it might possibly overpower the gland and develop local growth. An enlarged gland is an evidence of a local struggle of a defeat. The lymph system undoubtedly performs a great function in draining the ductless glands. Considering the lymph supply of certain organs, it is found that the brain is deficient in lymphatics in its structure, the arachnoid serving this purpose upon its surface. Hemorrhages into its structure become cysts from lack of absorption, and infections in its substance cause but little temperature or general disturbance, except from pressure. The liver and kidney show the same condition in a less marked degree. The lungs, rich in lymphatics, give constant temperature from infectious diseases. Chills usually signify the direct delivery of accumulations of infection into a vein. In certain diseases resulting from a loss of equilibrium between the production and absorption of fluids, one set of lymphatics is substituted for another by operation, as in glaucoma and hydrocephalus. When lymphatic conditions are considered in connection with surgical work, it is found that there is a real principle involved in drainage, whether it be external or internal. (1) Rest by splints, pressure, dressing, or bed, to quiet the circulation; (2) by elevation to reduce arterial supply and favor venous and lpmphatic return; (3) by massage to break up coagulated exudates and enable the lymph vessels to remove the exuded material; (4) moist dressings favor the escape of exudate from open wounds, and also favor the lymphatic circulation in closed injuries; (5) adjuncts to drainage in the use of solutions having affinity for moisture acting by osmosis, as glycerin or alcohol; (6) wound drainage could be accomplished by the open method, with or without secondary suture; (7) by separate incision; (8) by wicks, capillary or tubular drains, or gauze packs,as mechanical aids.

The Solar Cautery.

Thayer (Pacific Medical Journal, September, 1903) states that during the last

thirty years he operated more than 2,000 times with concentrated sunlight and has yet to find any case of injury from it. "Unlike other caustics and cauteries, it can be applied to delicate membrane or tissue; and inflammation following its application is surprisingly slight and of short duration. The pain subsides immediately upon removal of the lens. Blistering is avoided, as the burning is carried beyond that point. The abnormal tissues are carbonized. In the treatment of all morbid growths these must be fully destroyed. Upon this depends the success of the operation. The tissue must be thoroughly desicated before cremation takes place. If the solar heat is applied for more than a few minutes at a time the fat in the tissue is melted and effusion of serum is increased, preventing further destruction. After waiting for a short time for the part to cool the application is renewed, and continued from time to time until the job is accomplished. The part is then dressed so as to thoroughly protect it from the air. In three or four days carbonized material is thrown off leaving a healthy sore, which is treated as any ordinary wound. The resulting cicatrix is very slight." The author claims that there is very little pain, less treatments are required, there is less constitutional disturbance and greater probability of cure than any other methods.

The Ocular Complications of Mumps.

Woodward (N. Y. Med. Jour., January 2, 1904) mentions the various ocular complications in this disease including conjunctivitis, abscess of the lid, keratitis, dacrioadenitis, iritis, hyperemia of the disks, optic neuritis and neuro-retinitis.

The following case observed by him presents some unique features.

The patient was a little girl eleven years old. Tumefaction in the parotid regions persisted after convalesence. On attempting to use the eyes in school there occurred vertigo and momentary failure of vision in the left eye, accompanied by suffusion of the conjunctiva and lachrymation. Five weeks later the left pupil became suddenly and permanently dilated while reading fine print by artificial light.

Examination showed a hazy cornea, dilated pupil, T. (plus.) Ophthalmoscopically blotches in the fundus resembling hemorrhages and a whitish reflex below. V. p. l. The upper field was blind. Anterior sclerotomy was performed, following which the cornea cleared somewhat and an occasional retinal vessel could be seen. Woodward first saw the case about a week later. The pupil was then dilated and immovable, the disk intensely edematous, the veins dilated and tortuous, some of the arteries normal, others quite empty. Two months later the pupil reacted to the brightest illumination, the vitreous contained floating particles and the arteries and veins were entirely obliterated. At the macula was a large white streaked patch and about the disk whitish spots were scattered. Thirteen months later conditions had not changed.

Bovine Tuberculosis.

Kime (Medical News, January 23, 1904) believes in the identity of human and bovine tuberculosis.

It is estimated that there are in this country not less than 2,500,000 tuberculous cows, and from these, milk, butter and other dairy products are daily distributed to our homes. Of these products, milk is most dangerous as it is used in the uncooked state and is itself a good culture medium for the bacillus.

Milk from tuberculous cows is unfit for use no matter how slightly the cow may be affected and without regard to whether the udder is diseased or not. Of course the more extensive the disease, and the more the udder is involved, the more dangerous the quality of the milk. But if any cow respond to the tuberculin test, she should at once be condemned for dairy purposes, as foci of infection may be present in the udder and may not be sufficiently large to be detected by any known methods of examination; nor is it known that milk from tuberculous cows whose udders are healthy is free from bacilli. In fact, the contrary is held to be true. Certain it is that all tuberculous cows are sick cows and no animal is suitable to furnish milk for use that is not in a perfect state of health.

Milk from an infected dairy herd is especially dangerous to children whose diet is so largely composed of this single article of food. It undoubtedly contributes largely to the summer diarrheas which are so common in infantile life and, if the child then escape, it may only be to be stricken down in early life by the same insidious germ which has lain latent for many years.

As a result of local agitation, the State Veterinarian of Iowa tested the dairy herds supplying milk to the city of Fort Dodge, a city of some 15,000 inhabitants, and found that 25 per cent of all the cows in these herds were tuberculous. They were condemned for dairy purposes and an attempt was made to have a city ordinance passed for the purpose of protecting the public against like dangers in the future. Able attorneys, also residents of the city and consumers from the dairies, were employed to oppose the ordinance and it was defeated. The public was wholly apathetic

and one dairyman, who refused to have his herd tested, continued in business without the least loss of patronage, although he sold his milk at the same price as those whose herds were now known to be free from disease. Later a local butcher bought the condemned cattle and sold them on the block to the residents of the city. This fact was published by a local newspaper and did not even excite comment.

This public apathy presages a long and almost hopeless fight against tuberculosis in our dairy herds.

Surgery of Hydrocephalus.

Ricketts, Cincinnati (Med. Fortnightly, Jan. 25, 1904) makes the following statements:

Excessive secreation from the cerebral meninges may occur in any form of animal life.

The various forms of vegetable life are subject to excessive local or general secretion to a fatal degree.

Hydrocephalus (ventricular or meningeal) may develop in uterus, or at any time throughout infant or adult life.

The number of cases of spontaneous recovery in either are probably numerous, especially in infant life when the arachnoid is alone involved.

All cavities may unite with or without external rupture, when so it is usually fatal.

Spontaneous rupture may occur externally or subcutaneously with an occasional recovery.

The effusion may be into the lateral third or fifth ventricle, or it may be in the arachnoid cavity one or all.

A clot in the arachnoid cavity may cause a cyst, which will enlarge with all its consequences.

Syphilis and rickets have been assigned as causes of hydrocephalus, but such have never been proven, causes yet unknown.

Sometimes zones of new osseous material are seen scattered here and there in the meninges, and sometimes upon or in the brain substance.

The septum lucidum is invariably thickened, as are the cerebral meninges in general.

It is probably the greater number of cases of hydrocephalus, whether of the third or fifth ventricle, or of the arachnoid variety, that can be cured by some form of drainage.

Continuous drainage by Seton, or the repeated use of the trocar has given the better results in the way of benefit or cure.

Spinal drainage has been practiced to but a very limited degree, and as yet very undetermined.

Subcutaneous drainage has not as yet resulted in a case, but there seems to be many possibilities for this method.

Trephining for drainage is only resorted to in cases where the fontanelles have closed by bony union.

Results from drainage are more favorable if it is done when the presence of fluid is first detected.

It is sometimes necessary to drain both hemispheres, together with the right and left cerebellar cavity.

The secret of curing arachnoid hydrocephalus by drainage probably lies in obliterating the arachnoid cavity. However, this can hardly be so with hydrocephalus of the third and fifth ventricular variety.

The cardinal principle in this as in all operations upon the brain is asepsis.

The Prognosis of Tuberculous Peritonitis in Children.

Southerland in the Medical Press and Circular gives the results of a study of forty-one cases of tuberculous peritonitis treated in the inpatient department of the Peddington Green Children's Hospital. His paper, may be summerized as follows: (1) In uncomplicated tuberculous peritonitis the prognosis is good. (2) When tuberculous pleurisy is present the prognosis is still favorable. (3) The prognosis is rendered less favorable in the case of (*a*) a strong family history of tuberculosis; (*b*) an infancy passed under bad hygienic and dietetic conditions; (*c*) a constitution of feeble resisting power; or (*d*) a history of severe infective illness in early life. (4) The prognosis is rendered less favorable in the presence of one or more of the following symptoms: continuous pyrexia, rapid wasting, persistent diarrhœa, rapid pulse, and recurrent acute exacerbations. (5) The prognosis is rendered less favorable in the presence of one or more of the following local complications: (*a*) tuberculous ulceration of the bowl; (*b*) extensive caseation of the mesenteric glands or of tuberculous masses; (*c*) localized suppuration from infection through glands or the intestine; and (*d*) obstructive symptoms from bands or matting of the intestine. (6) The prognosis is bad in the case of the following complications: (*a*) the rupture of a suppurating gland, or the perforation of an intestinal ulcer into the peritoneal cavity; (*b*) pulmonary tuberculosis; (*c*) tuberculous meningitis; (*d*) general miliary tuberculosis. (7) The prognosis is not appreciably affected in tuberculous peritonitis by simple laparotomy.

The Prolongation of Life.

Hermann Weber (Brit. Med. Journal,) Dec. 5, 1903), says that the diminution of infant mortality and the improvement of the hygienic conditions have raised and will continue to raise the average duration of life. Galen, Cicero and others wrote almost as wisely in the ancient days as modern authors have done. Nevertheless there is a great difference between the old writings and the new. This is due to the immortal services of Jenner, Pasteur, Lister and Koch. From the recent reports of the Register Office of England, it appears that we are justified in assuming that though high life is usually limited to eighty years it may be occasionally prolonged to a hundred or even more by the operation of certain internal and external agencies. By studying these we may eventually be able to prolong the lives of many individuals beyond a century. He records the result of his examination into the records of more than 100 cases of long-lived persons and concludes that the majority of them were temperate, that they were the small meat eaters; that they lived much in the open air; led an active life, often one of toil with great restrictions as to food and comforts; that most of them were early risers; that a great many of them had a joyful disposition and performed thier work cheerfully and that only a few were intemperate or idle and lazy persons. The tendency to early death is just as hereditary in some families as logevity, and these individuals it is whose lives by judicious adherence to the regimen above cited can be most favorably influenced. Saville has shown that death from old age is caused by a kind of atrophy of the tissues and organs connected with the changes in the blood vessels, and the atrophy of the hematogenic glands. Life, in other words, depends to a great extent on the organs of circulation. These questions have received especial attention from Ludwig and Sir Lauder Brunton. Mosso has shown by his ingenious balance on which a man is placed in the horizontal position, that during the act of thinking the head becomes heavier from a rush of blood to it. Walking is the natural exercise of the body and Oertel's method of mountain climbing has shown what a profound effect it may have on the human frame, especially upon circulation. Nor is the week end holiday unimportant. Martin Luther's motto, " Rast Ich so Rost Ich " (If I rest, I rust), is true, but the wear of exercise is more than compensated by the increased supply. Of foodstuffs the author says that adult healthy persons do not need alcohol. The average duration of life in Owen's reports comprising 4,284 persons, was greatest among abstainers. Very few moderate drinkers living as long and almost no one who had been a hard drinker passed beyond late and mid-life. Tea and coffee are considered by the author to be valueless, coffee, because of the volatile oil being more injurious to digestion than tea. Snuff-taking is now out of fashion, but many old doctors maintain, not without some reason, that snuff prevented many forms of frontal headache and acted as a valuable stimulant to the capillaries of the Schneiderian membrane. Massage is important, not alone with the general body, but of localized parts. Friction of the thyroid is probably useful in maintaing general energy. Massage of the scalp retards loss of hair and prevents some forms of headache.

Diastolic Aortic Murmurs without Valvular Lesions.

Gibson (Edinburgh Med. Journal) states that there is a form of aortic insufficiency, which although not due to valvular defect, yet presents the same clinical features as the organic form, and is so frequently encountered that it may here be breifly dwelt upon. This is a relative incompetence of the semilunar valve, and its causes are found in conditions that predispose to stretching of the ventricular wall and of the basal ring of the aorta. He cites two cases in point. The first patient was a man aged thirty years. He was suffering from chronic nephritis. In the aortic area, a hard systolic murmur was heard, which was propagated into the carotids. The second sound was impure and was followed by a soft blowing diastolic murmur, best heard over the sternum, and hardly propagated at all. Autopsy revealed a dense band surrounding the aorta and pulmonary artery. This caused considerable displacement as well as constriction. He states that the diastolic murmur was produced, not by stretching of the orifice (which was negatived by the result of the post-mortem examination), but by faulty adaptation of the aortic cusps. The systolic murmur was no doubt largely due to some dilatation of the vessel beyond the constriction. The second patient died of aneurysm of the aorta. About a year before his death a diastolic murmur developed over the upper part of the sternum. In neither case was there any permanent stretching of the orifice. He states that the murmur was due to faulty adaptation of the different cusps of the aortic valve. It is impossible to concefve of temporary dilatation, and in default of any pathological proof of enlargement of the orifice, faulty application of the individual cusps to each other can alone be entertained as the cause of regurgitation.

Gonorrhea in Infants.

Kimball in the Medical Record deals with this subject as follows:

1. Gonorrhea prevails among infants and children to an extent not fully appreciated by the medical profession at large, and has become a common epidemic in institutions where numbers of children are placed together.

2. The ordinary clinical forms which the gonococcus infection assumes in children are ophthalmia, vulvovaginitis, and pyemia.

3. A series of cases of pyemia, reported in this paper, occurred in infants, in whom no local lesion could be found to explain the mode of entrance of the organism to the general circulation.

4. The suggestion is made, that from a stomatitis due to the gonococcus such a systemic infection may arise. Gonorrheal stomatitis in infants is a disease that needs further study.

5. Only by careful exclusion, by microscopical examination, and by complete isolation can this disease be absolutely debarred from a hospital where infants are cared for.

6. There is urgent need of public enlightenment on this subject. Those in charge of institutions for children, trained nurses and even parents, should be taught the frequency and virulency of this infection and the ease with which it is spread. It should be the duty of health authorities to include gonorrhea among the acute infectious diseases of children.

Operative Treatment of Bright's Disease.

Guiteras (N. Y. Med. Jour.) makes an examination of 120 cases of chronic Bright's disease thus far treated surgically. He concludes as follows:

1. Chronic nephritis should not be operated upon until medical treatment has proved of no avail.

2. The time for operation is when it is noticed that the process is advancing rapidly and we fear that the heart will soon become overtaxed.

3. The operation for chronic Bright's disease which has proved least dangerous and which has shown the best result is nephropexy performed on a single movable kidney.

4 The most unfavorable cases for operation are those of diffuse nephritis.

5. Cases of general anasarca with bad heart action should not be operated upon; if the heart action is good an operation performed as a *dernier ressort* may give the patients a few extra months of life, provided they survive it.

6. Where there has been a marked destructive process in the kidneys as a result of a nephritis, the operation may relieve them for a number of weeks or months, but they generally fail again and die when the new capsule begins to contract.

Surgery of Cerebral Tumors.

Woolsey (Am. Jour. Med. Sciences), concludes an interesting article as follows:

1. The sphere of operation for cerebral tumors may be and has been extended to those parts of the cortex where tumors are accessible and localizable—i. e., to the prefrontal, parietal, and occipital regions, in addition to the motor area.

2. The prognosis, both immediate and remote, is as good as or even better than in operations for malignant growths in some other locations.

3. This prognosis has improved with the improvements in localization and operative technique, and with the limitation of the radical operation to cases accurately localized.

4. The palliative operation is strongly indicated to relieve symptoms where localization cannot be accurately made or the tumor cannot be removed. The exploratory operation is contraindicated.

5. Practically all circumscribed growths of moderate size are suitable for operation.

6. The osteoplastic method should be employed and the most rapid and perfect technique adopted which the circumstances allow.

A Case of Diphtheria Complicated by Acute Endocarditis of the Mitral Valve.

Findlay (Glasgow Medical Journal) reports a case of diphtheria complicated by acute endocarditis of the mitral valve, and from its study he concludes as follows: (1) That the child developed endocarditis during an attack of diphtheria; (2) that such a complication is extremely rare; (3) the evidence of bacteriologists suggests, in spite of the fact that the diphtheria bacillus has been found in the vegetations of endocarditis, that this complication probably results from some organism other than the bacillus diphtheriæ itself, which only perhaps predisposes the tissues to succumb; (4) the most probable microbic offender in this case was the versatile and ubiquitous pneumococcus; (5) it is impossible to say how far the serum itself may have been responsible for causing the endocarditis.

Pneumothorax Associated with Fracture of the Ribs. Treated by Puncture of Chest.

F. T. Murphy (Boston Medical and Surgical Journal, October 29, 1903.)

A boy, nine years old, was brought to the hospital shortly after being thrown from his bicycle; it was not known whether he had been run over. Examination showed a strong boy in poor condition. Color was

bad; the respiration rapid, thirty-five to the minute and labored; pulse 135. Both sides of the neck and the left back were markedly emphysematous. The chest was resonant all over, but on the left there was absence of breathing and fremitus. The belly was not remarkable, and there were no marks of injury except to the chest. In fact there was no definite fracture of the rib, only a marked tenderness on the left under the emphysema.

As the condition was rapidly becoming extreme no further examination was made, but a large trocar was inserted on the left at the angle of the scapula. A rush of air followed the insertion, and the dyspnea was immediately relieved and the cyanosis disappeared.

The child announced that he no longer felt as if he was suffocating. After the first escape of air considerable blood ran out. The trocar was kept in for five minutes, during which time the lung had expanded over the upper three-quarters of the chest. The chest was immobilized and 1-12 grain of morphia given subcutaneously and the child sent to the ward. As far as symptoms and treatment went, he might as well have been sent home. On the second day there was a rise in the temperature of two degrees, but not once did he complain of pain or dyspnea. All but a trace of the emphysema and pneumothorax had disappeared by the fourth day.

Experience has proven that interference is rarely necessary to relieve the intrapleural pressure after fracture of the ribs. In the type of case illustrated by the above report it certainly gives relief, and may be a life-saving measure.

Two Cases of Cirrhosis of the Liver in Children.

Wm. Osler (Johns Hopkins Hospital Bulletin, November, 1903) reports these cases. With regard to the family history of the first patient, seven years old, the mother had had numerous miscarriages. The previous personal history was negative. Examination revealed nothing in the face, teeth or conformation of the head suggesting syphilis. About six weeks before the report the abdomen became enlarged and hard. The vertical liver dullness extended fully ten inches, and the liver could be felt as a smooth, hard mass filling the upper section of the abdomen, the lower edge being sharply defined as far down as the navel. The edge of the enlarged spleen, also, could be felt. There was some distention of the superficial veins; there was no grandular enlargement, on ascites, nor any swelling of the feet.

He said that among the conditions with which enlargement of the liver is associated in children were any form of malnutrition, especially rickets and syphilis; such cases are numerous. Cases of enlargement, due to cirrhosis, are rare in this country and in Europe, but the Anglo-Indian physicians report numerous cases which are attributed by some to the absorption of imperfect products of digestion. In a large proportion of cases of cirrhotic liver in children there is enlargement, but no ascites until late, and very rarely jaundice.

The second case, a lad of thirteen years, had a negative family and previous personal history. Within the past year he had occasionally taken a few glasses of beer. The boy had not been in very good health for a few months; but the enlargement of the abdomen had come on suddenly a few days before admission, about three weeks before this report. Since coming under observation the abdomen had continued to increase, and had become tense and covered with large distended veins, in which the current was upward; there was ascites. Tuberculosis of the peritoneum was suspected; but, on account of slight fever, the tuberculin test was not available. The distended veins suggested an atrophic cirrhosis with ascites. Respiration had become difficult, owing in part to the ascites; so that the abdomen was opened and drained. The liver was found asrophic and cirrhotic.

Cirrhoses of the Liver.

Beverley Robinson (American Journal of the Medical Sciences) gives as the principle forms of cirrhosis: Atrophic, hypertrophic, and syphilitic. As to their pathology, in the hypertrophic, the fibrous tissue is finer, less formed, accompanied by a cellular growth, and runs along the smaller branches interstitially. In the atrophic form this fibrous tissue is coarser, better formed, shows greater tendency to contract upon and disorganize liver cells, extends along larger branches of the interstitial tree, and is not accompanied by cellular growth to the same degree at all. In syphilitic cirrhosis there are broad bands of fibrous tissue, which penetrate between the lobuvles and draw the liver down near the surface in such manner as to leave the puckered, scarred appearance, with bossy, prominent, irregular masses between, which are so characteristic. In atrophic cirrhosis the main distinguishing clinical feature is the evidence of marked portal obstruction. Abdominal effusion arises. Jaundice is a rare sign. The real duration of these cases is long. In the hypertrophic form ascites does not often occur, but jaundice is a marked and almost omnipresent symptom. Like to atrophic cirrhosis, hæmatemesis is

not infrequent. As to clinical symptoms, syphilitic cirrhosis resembles one of these two forms. There may be jaundice and no ascites, or there may be both ascites and jaundice. Or, neither sign may be present. Despite the fact that it is affirmed that jaundice does not occur in atrophic cirrhosis, it would seem as though we may and do have jaundice in all forms of cirrhosis. Jaundice occurs earlier in the hypertrophic form than in the atrophic. The prognosis of hepatic cirrhosis has usually been most gloomy. Today we are more encouraged, and regard certain cases very hopefully. The first indication of treatment is from the point of view of arresting growth of fibrous tissue in the liver, and to the preservation of the remaining healthy liver cells. This is accomplished, if at all, when alcohol has been an etiological factor, by the abandonment of its use.

Artificial Feeding of Infants.

Hutchinson (The London Medical Lancet, Sept. 19, 1903) gives his experience in the treatment of children. The statement is made that the basis of all attempts at artificial feeding must be cow's milk. The drawback to cow's milk is the indigestibility of its casein. We can overcome the quantitative by diluting the milk, but this does not affect the chemical character of the casein. Hence it is that no artificial humanized milk can, ever be really as digestible as that of the child's mother. The writer says that barley water has certain advantages as a dilutent, but if there is a tendency to diarrhea or scalding under the napkin, lime water is preferable. To be of any use the lime water must be used freely. A teaspoonful or two, which mothers often add to the bottle of milk, is of no value. To increase the sugar, lactose is used, but if not obtainable, white sifted cane sugar may be used. Brown sugar is to be avoided, as it ferments more easily. Feeding should be regular. In warm weather, milk should be boiled not more than one or two minutes. There is no doubt that boiling milk increases the risk and produces scurvy. Poor results in the artificial feeding of infants are often due to the aperture of the nipple used. It should be of such a size that it will drop, when the bottle is inverted, about a drop per second. When infants are doing poorly, attention to this point is often all that is needed. The baby should gain five or six ounces per week.

Acute Myelitis.

Collins in the Journal of Nervous and Mental Diseases states that if we consider acute myelitis to be an inflammatory state of the spinal cord due to infection or intoxication, the morbid process being produced by the action of the microbes and their toxins upon the medullary parenchyma, or indirectly through the circulatory system, the disease is rare, and, as a matter of fact, acute myelitis, either of the transverse, diffuse or disseminated form, is rarely observed, and is nearly always due to infection or intoxication. The infectious organisms that produce myelitis are the streptococcus, the staphylococcus, the pneumococcus, and a special diplococcus. In addition, there are other organisms capable of causing myelitis, as it follows tonsillitis, dysentery, erysipelas, typhoid fever, gonorrhœa, cystitis, puerperal fever, pneumonia, influenza, tetanus, and other diseases. The author then relates a case of tuberculous meningo-myelitis, and summarizes the points noticed in the case, which was that of a young married woman, four months pregnant, who was taken ill without any known cause with symptoms of acute inflammatory rheumatism. After three weeks the symptoms subsided, and were followed by indications of acute myelitis, such as motor paralysis of the lower extremities, incontinence of urine, pain in the back and extremities, spasmodic twitchings and contractions of the legs, and enormous bedsores and other trophic disturbances. Soon afterwards she gave birth to a living child, the labour being painless. From this time forward the symptoms of meningeal involvement, which had previously not been noticed, became evident. Later, septicæmia set in, and the patient died. On autopsy there was found an extensive purulent leptomeningitis and inflammation of the spinal cord, particularly of the lower dorsal region. Microscopical examination of this area showed that the focus of most extensive myelitis was confined to the seventh, eighth, and ninth dorsal segments. He is of opinion that the patient did not suffer from acute inflammatory rheumatism, but that the pain in the extremities and swelling of the joints were the result of tuberculous infection of the cord, which are first implicated that part of the cord in which is situated the central representation of the sympathetic nervous system, and that the symptomatology can be explained on this supposition. Next came the symptoms of slowly progressing acute myelitis, and later on the symptoms of meningitis were superimposed, obscuring somewhat those due to inflammation of the cord itself.

Difficult Anesthetization.

H. W. Hewitt (The London Lancet) says that they may be classed under six headings: (1) Patients of general good health, but possessing some physical pecu-

liarity, with more or less liability to intermission of arrest of breathing; (2) patients whose respiratory tract is in some way encroached upon or impeded by pathological or other conditions; (3) patients suffering from grave physical or constitutional disease; (4) highly nervous or excitable patients or the victims of a nervous disease, or of alcoholic, tobacco, morphine, or other drug habit; (5) patients combining any of the characteristics of two or more of the preceding classes; (6) patients who prove to be difficult or bad subjects for anesthesia without any discoverable cause. Apart from the general rules for good anesthesia, this author concludes that a mixture of chloroform and ether, administered slowly, produce better results in these patients than either ether or chloroform alone. The mixture which he recommends consists of two parts of chloroform and three parts of ether. He also recommends the use of a small mouth-gag, so that oral breathing shall be entirely uninterrupted.

Fragilitas Ossium in Children.

David McM. (Inter-Colonial Med. Jour. of Australasia) describes two cases in one family. The first child, now twelve years old, was born with both thighs broken, and has since had over forty fractures of various bones. The second, seven years old, was born with one arm broken, and has since had about twenty fractures. The bones were broken usually by very slight violence. Occasionally a fracture has been detected in the morning, which was not present when the child was put in its cot. The fractures have united fairly well in both children, the reason probably being that the bone is easily broken, and being very brittle the fracture is almost necessarily transverse. A family tendency is shown, as two children are affected, although five others are healthy, but no heredity can be traced. As to a cause for the disease, fetal rickets has been held responsible; but the cases of osteopsathyrosis are so rare that one is disinclined to believe that there is any causal connection between the two diseases. In rickets the bone tends to bend rather than to break. The skull bones in some recorded cases have been very soft, others being typical example of "crepitant cranium." The two cases reported seem to be improving as time goes on, as most of these fractures occurred in early life, and the tendency has gradually lessened of late years. In view of the possibility of the disease being a metabolic or nutritive disorder of the bones, and on account of the valuable effect of thyroid feeding in cases of ununited fracture, the author is giving thyroid substance in these cases.

Delirium Tremens.

Clemens, in the New York Medical Journal for October 10, gives the treatment of this condition as follows: An essential point is to get the patient to take food, and if old or weak, or if the attack is severe the author gives whiskey or brandy for two reasons. (1) as a bribe to get him to take food and (2) as a stimulant to the heart which is weak, while a further advantage consists in combating the insomnia so constantly present. Milk, raw or peptonized, is given every two hours alternating with strong beef juice. A dose of calomel is given at the outset to be followed by an occasional saline. A bitter tonic in which strychnin holds a place is given, and if the first heart sounds become weak strychnin is used hypodermically. The room should be dark, cool and quiet. If insomnia is present a choice from the following will promote sleep; hydrobromate of hyoscin (1.200 to 1.100 grain) hypodermically; sulphonal or paraldehyd by the mouth; opium and chloral hydrate are positively dangerous by reason of the probable condition of the heart and kidneys. The patient must be constantly kept under observation, and as the delirium may be secondary to the state of the lungs, treatment consists in keeping a constant ear to the heart, and a finger to the pulse, exhibiting stimulants without restraint when necessary.

Typhoid Bacilli in Sputum and Urine.

Richardson (Boston Medical and Surgical Journal for February 5, 1903) summarizes our present knowledge regarding the presence of typhoid bacilli in the urine and sputum.

(1) Typhoid bacilli are present in the urine of about twenty-one per cent of individuals afflicted with typhoid fever.

(2) The bacilli when present, are generally in pure culture, and their number is frequently enormous—many millions in each cubic centimeter of urine.

(3) The invasions of the urine by the bacilli takes place in the latter stages of the disease. Unless measures are taken to remove the organisms they persist frequently for weeks, occasionally for months, and rarely for years, and thus constitute (*a*) danger to the patient himself (cystitis, and possibly orchitis and epididymitis), and (*b*) what is more important, a grave source of danger to the public health.

(4) The necessity for the rigid disinfection and supervision of typhoid urine is apparent.

(5) In urotropin we have a drug which will, in the vast majority of cases, remove the typhoid organisms from the urine, not

only in the cases of simple bacilluria, but also in those in which a cystitis has resulted. Very rarely an obstinate cystitis may require the use of vesical irrigations. Very frequently a case will be seen in which the use of urotropin is followed by hematuria. In such cases the drug should be omitted and irrigation of the bladder substituted.

(6) This subject in its relation to the public health is of the utmost importance. In my opinion, it should be a fixed rule, and one rigorously enforced, that no typhoid convalescent be discharged as well until his urine has been proved perfectly free from bacilli. In large hospitals, with their well-equipped laboratories, such supervision can be carried out with ease. Cases in private practice should be in the care of the local boards of health. In this way only can we prevent a considerable per centage of our typhoid convalescents from becoming unsuspected foci for the further distribution of the disease.

Cysts in the Teeth.

J. C. Oliver (Ann. of Surgery) offers the following observations on the subject: He believes that the real nature of these growths rests very largely upon the following four points: (1) Absence of a permanent tooth, after it should have been erupted, without any history of its removal; (2) the cystic nature of the growth; (3) the crackling sensation of the thin, bony cyst-wall when pressed upon; (4) exploratory incision. The development of a cyst at or near the time of eruption of a permanent tooth may be of value in diagnosis, as may also the slow increase and painless development of the neoplasm. "Crackling" is by no means a constant symptom, and is inferior in diagnostic import to tapping or incision. In any case of cyst connected with either jaw, incision of the mass should precede incision of a part or all of the jaw. This conservative measure does not interfere with the radical one, and may frequently obviate any mutilating procedure. The prognosis is uniformly good, both as to the life of the patient and from an esthetic point of view. The evacuation of the cyst, removal of the tooth, thorough curretting of the interior, with subsequent packing of the cyst cavity, is the proper procedure in all cysts connected with the teeth. This mode of attack will certainly remove the growth as well as the cause of it. Cysts in connection with the teeth never require removal of osseus structure in order to bring about a cure. Of course, one can imagine the implantation of a malignant growth upon one that was originally benign, but literature on the subject does not record an example of such transformation.

Diagnosis of Round Ulcer of the Stomach.

Edwards (Iowa Medical Journal) says that in the etiological diagnosis, 40 per cent. of cases occur between the ages of 20 and 30 in women, of 30 and 50 in men. The disease sustains some relation to anemia, chlorosis, internal and external trauma, alcoholism, burns, tuberculosis, syphilis, arteriosclerosis, improper diet, etc.

The cases may be, clinically—1, quite typical; 2, doubtful; or, 3, entirely latent.

Symptoms—1, pain, with localized tenderness; 2, hematemesis; 3, hyperacidity.

The pain is paroxysmal, localized, and occurs during digestion. It is boring, burning and but seldom lancinating.

Hematémesis occurs in as high as 84 per cent. of cases according to Martin. The hemorrhage may be overlooked. If profuse, it is voided bright red; if slow and moderate, the acid turns it dark, "coffee-grounds" vomitus. If red blood cells cannot be found in the vomit, because of com-complete disintegration of the cells, blood can be detected by treating with acetic acid, extracting with ether and then tested with the guaiac and turpentine reaction, when blood will be shown, even if the spectroscope shows nothing.

Hyperacidity occurs in 90 per cent. of cases (Hemmeter), is less frequent in old ulcers and may be of two kinds—1, in the presence of food in the stomach; 2, confirmed hypersecretion.

Vomiting is less constant and valuable than pain, although they usually occur together.

Etiology of Tuberculous Peritonitis.

Edmund Cautley (Med. Press and Circular) divides this much-mooted condition into the adhesive type; second, into the peritonitis with effusion of (*a*) serum, (*b*) pus; third, caseus or ulcerative peritonitis. Cast what doubts we may upon the value of inheritance, there is no getting round the fact that the child is the product of inheritance modified by environment. The disease reaches that child by being directly transmitted from the parent through the medium of an infected germ cell or maternal blood supply, or the child inherits a peculiarity or delicacy of structure which renders it liable to invasion. It is almost inconceivable that the microscopic spermatozoon can actually contain the bacillus even in the spore form and convey it to the ovum —much more probably the infection of a sperm cell would impair its nutrition and render it valueless for impregnation. Furthermore, it is highly doubtful that an infected ovum would be satisfactorily impregnated and developed. Maternal inheritance, however, stands etiologically on a different

footing. For nine months of prenatal life the child's blood is the mother's. Truly this blood is filtered through the placenta, but even human filters may be imperfect, and supposing a tuberculous mother, why should the placenta remain free from infection more than any other organ. This infection may be of so mild a character as not to produce abortion. Gartner, by inoculating the mother intravenously, produced tuberculosis in young mice. Bacilli have been found in the human fetus, removed by Cesarean section from a tuberculous mother. Many infants show such advanced conditions of pulmonary tuberculosis at birth as to make fetal infection an almost necessary explanation. As to the identity of the human and bovine bacilli, many observers have succeeded in showing that human bacilli will produce tuberculous lesions in calves; and Koch's negative results are probably due to using too small doses of insufficient virulence. Milk is the diet of a child for the first year or more of life. There is no doubt that much milk is fed into infants' stomachs which contains great numbers of tubercle bacilli, yet the disease is a rare one. It is, however, much more prominent among the poor than the rich, although the former get less cow's milk. Autopsies show that 59 per cent. of tuberlous children have tuberculous mesenteric glands, and that 80 per cent. of these show ulceration of the bowels. From this it would seem that 47 per cent. of tuberculous children have this ulceration. In conclusion he urged that all forms of tuberculous peritonitis are probably not due to the same breed of bacillus. Both clinically and pathologically, there are good grounds for supposing that the bacillus varies in its effects, according as to whether it is bovine or human.

The Auto-Intoxication of Pregnancy.

Editorial in Birmingham Med. Review.—Much has been written of recent years on auto-intoxication as a cause of disease, both functional and organic. The toxins referred to develop either because there is a failure to eliminate excesses of waste products, the result of excessive ingestion of food stuffs; or because metabolic processes are imperfectly carried out, as a result of inherent defects in the excretory organs. In pregnancy the chances of auto-intoxication are increased, because there is a heavier tax on the alimentary system, and increased metabolism, owing to the fœtal excretory products. Flatulence and constipation are common even early in pregnancy, and intoxication may result from them. Intoxication produced in this way may even give rise to abortion, while it is well known that minor symptoms, such as excessive vomiting, may be entirely cured if constipation and dyspepsia can be relieved. Other diseases of pregnancy may be now brought into the category of auto-intoxications, such as colitis, appendicitis, ptyalism, phlebitis, neuritis, and chorea. But of all these conditions none are so undoubtedly auto-intoxcations as eclampsia, and the following may be given as reasons for this: First, most cases of eclampsia have been preceded by marked severe constipation; secondly, all remedies which do any good in eclampsia are those which aid elimination or dilution of toxins; thirdly, in 85 per cent. of fatal cases of eclampsia the kidneys are found to be diseased; fourthly, the only other constant lesions of eclampsia are found in the the liver, the organ chiefly concerned in metabolic processes. This theory of eclampsia sia, too, is partly confirmed because eclampsia is more common in primiparæ, because they have no acquired immunity to the toxins produced, and in twin pregnancies, because of the probable increased production of toxins. There can be little doubt that eclampsia is always preceded by constipation, no case being recorded in which diarrhœa was present. Of course, it must not be assumed that constipation will always give rise to eclampsia or any of the other serious manifestations of pregnancy, because, as a general rule, the kidneys and skin will rise to the occasion, and efficient elimination results. The therapeutic measures commonly of value in eclampsia—such as purgatives, hot packs, venesection, pilocarpine, etc.—all act by aiding the elimination of toxins. It is true, however, that chloroform and morphia do not act in this way; but it must be agreed that these drugs are in no way curative, but only act by controlling the fits till the methods of elimination of toxins have time to act. If, then, eclampsia is really due to this auto-intoxication it should be possible to prevent its occurrence. Careful regulation of diet, especially avoidance of all excess of proteid, and daily evacuation ot the bowels, will, as a rule, prevent any anxiety on the score of eclampsia supervening. The urine is by far the best guide to the powers of the patient to eliminate toxins, and estimation of the urea the best index. The excretion of urea always falls if there is any failure on the part of the kidneys to eliminate. The mere presence of albumen in the urine is no guide as to the efficiency of the kidneys, as many cases of albuminuria and dropsy occur without any eclampsia resulting. If eclampsia should occur, active treatment is necessary, and in addition to the usual methods of treatment in vogue, the value of thyroid extract must now be carefully considered. In

pregnancy the same blood changes occur as those which follow the removal of the thyroid—namely, increase of volume of the blood, with diminution of the solids; relative decrease of red corpuscles and albumen, and relatively there is more water and less fibrin. It is therefore suggested that these changes may be due to thyroid insufficiency. Also, there is usually some thyroid enlargement during pregnancy, as if Nature were making an effort to supply this deficiency. Murray has shown that progressive thyroid enlargement in non-pregnant females may be checked by administration of thyroid extract. Thyroid extract acts largely by reason of the action of iodo-thyrin, which has been shown by Hutchison to stimulate metabolism and increase the excretion of urea. Thyroid extract has also been shown to be a diuretic in kidney disease, to modify or destroy circulating toxins, and to lower the blood-pressure and dilate the arteries. From all these considerations it appears as if the administration of thyroid extract may be of value in the prevention or arrest of eclampsia. In general, Nicholson recommends that 5 grains should be given twice daily, and that all proteid food should be stopped. If, however, a fit is imminent or convulsions are occurring, the action of the extract is not rapid enough given in this way, so Nicholson gives 10 to 15 minims of the liquor thyroidei, and repeats the injection if improvement does not occur at once. It may also be found that thyroid extract will be of value in the treatment of the minor degrees of auto-intoxication of pregnancy. —T. G. S.

Tuberculosis of the Uterus and Annexa.

Targett (British Medical Journal, Oct. 17, 1903) says that the female genital organs may be infected with tubercle in the following ways: (1) Infection through the blood stream, probably from lymphatic glands elsewhere in the body, but which source is undiscoverable. The Falloppian tubes are "seats of election" for tubercle. (2) Infection from the peritonæum: (*a*) from a general miliary tuberculosis of the peritonæum; (*b*) localized caseous tuberculous peremitritis may result from ulceration of the bowel, and the lesion spread to the appendages; and (*c*) the fluids in the peritoneal cavity may convey organisms into the tubes through the patent abdominal ostia. (3) Direct infection of the internal genital organs from adjacent parts other than the peritonæum. This is rare. (4) Infection from external sources, such as sexual intercourse, the use of instruments, or contamination with tuberculous fæces or urine. The Falloppian tubes are the organs most frequently affected in genital tuberculosis—they are involved in 90 per cent. of the cases. The ampullary portion of the tube is the chief seat of disease, because of its greater vascularity. Three forms of tuberculous salpingitis are defined, according to whether the lesion is in the miliary or progressive stage, the caseous or degenerative stage, and the fibroid or quiescent stage. The uterus may be similarly affected; in the majority of cases it is infected by extension of disease from the tubes, rarely from the cervix. Caseous tuberculous perimetritis may exist, with suppuration in Douglas's pouch. In making a diagnosis of tuberculous salpingitis the following points are of value: (1) The previous history of the patient, especially as to past tuberculous lesions. (2) The absence of other adequate causes—as salpingitis in a virgin. (3) Sterility. (4) Amenorrhœa and menorrhagia sometimes are present. (5) Dysmenorrhœa is a very common—often the chief—complaint. (6) Absence of pelvic pain. (7) Nodular feel of the diseased tubes. (8) Detection of tubercle bacilli in the vaginal discharge. *Treatment.*—Laparotomy often is beneficial in cases of diffuse or localized tuberculous ascites. When the tubes are found to be thickened they should be removed if not too densely adherent. Tuberculous pyosalpinx with dense adhesions to the intestine is best treated by resection of the gut. When the uterus is effected it becomes very friable and serious ruptures may result from dilating and curetting. Kynoch states that primary tuberculosis of the cervix uteri is more common than has been thought. It may be: (*a*) an ulcerating form, with sharp edges and soft floor, the lack of induration distinguishing it from carcinoma; (*b*) miliary tuberculosis; and (*c*) a papullary form involving the endometrium of the cervix, and characterized by soft, bright red, easily bleeding, finger-like processes. Where no signs of tuberculosis are found elsewhere in the body, the best treatment is hysterectomy, paliative treatment being reserved for secondary cases.

Diabetics—Surgical Operations.

Fowler (Maryland Medical Journal) says that operations may be divided into two main divisions—operations that are urgent, and those of no immediate necessity. As examples of the former may be mentioned strangulated hernia, hemorrhage, injuries, and acute suppurative appendicitis.

In conditions coming under the first division, perform the operation which will require the shortest time and will produce the least shock. Either should be used for general anasthesia, never chloroform. The after-treatment is the same as for the second group.

Considering the second division, the factors that determine the advisability of operating are the condition of the patient, the value of the lesion, and the gravity of the operation demanded.

Few patients are the most favorable surgical subjects. In young patients a trivial operation is not uncommonly followed by a rapid development of coma and death, while in older patients coma develops usually only after severe and prolonged operations. Alcoholics with diabetes are notoriously bad surgical subjects. The indications for operation on these cases must be most urgent to justify surgical interference. In cases of long-standing diabetes, structural changes have undoubtedly occurred which diminish resistance and make the prognosis less favorable.

Previous antidiabetic treatment is beneficial and should be instituted in every case before operation. It tends to prevent the development of coma.

There is a difference of opinion concerning the value of the presence or absence of knee-jerks in prognosis.

The great danger of operation is infection; the strictest asepsis is essential. It is interesting to note that operations about the mouth do very well, while those about the penis are exceedingly dangerous.

The simple operation of circumcision should never be done without first examining the urine for sugar. When diabetes exists the operation should be performed only when the indications are urgent, and then with the utmost precaution.

Gangrene of the extremities in not wholly dependent upon the diabetic condition, but rather upon associated vascular and nervous changes. Wallace would make diabetic gangrene a subdivision of senile gangrene—senile gangrene complicated by diabetes—and points out that, as in senile gangrene the most constant pathological condition in the diabetic form is arterial degeneration. Treatment of the two forms should therefore be similar.

The chief etiological factors of gangrene of the extremities occurring in diabetics are (1) traumatisms, often of very slight extent (2) arteriosclerosis; and (3) nerve degeneration.

Statistics show that in gangrene of the extremities the high amputation is the only method of treatment likely to give satisfactory results, except in those cases in which two or three toes only are affected and where symptoms of general septic poisoning are absent.

Wallace believes that the fear of local sloughing is without foundation, and that if the amputation has been high enough to secure healthy blood-vessels, the flaps may be expected to heal well.

The patient should be given large doses of sodium bicarbonate just before the administration of the anesthetic, as this aids in preventing the development of coma.

Etiology of Rheumatism: Its Obscurity, Prevention and Management in Childhood.

Winters (Medical Record, Jan. 9, 1904) states that rheumatism is caused by non-neutralized acid and products of proteid metabolism. Deficiency of basic constituents and of vegetable acids in food, excess of animal proteid, particularly nuclein, imperfect oxidation and defective elimination are important etiological factors. Therefore, foods in basic constituents and vegetable acids, originally combined with vegetable proteid and with a minimum of animal proteid, together with proper oxidation, cure and prevent rheumatism.

To this end potassium and sodium compounds are all important. Cereals, potatoes and bread are all rich in potassium and must, therefore, be taken freely. The salts of vegetable acids, by oxidation in the body, form alkali carbonates. Vegetable acids are thus also important articles of diet, to be obtained through the liberal use of fruits.

Attention is then called to the obsure nature and insidious onset of rheumatism in childhood; to the existence of many rheumatic equivalents—*e. g.*, tonsilitis, torticollis, pleurisy, recurrent vomiting, etc. In many cases anemia and endocarditis are the first manifestations. Irregular temperature in childhood is always suspicious and should lead to careful examination of the heart.

For the treatment of acute attack, he advises strict milk diet, with, later on, the addition of cereals. The use of animal broths he considers useless and pernicious. The dietetic management is all-important in the treatment of rheumatic children.

A Series of Cases of "Non-septic Puerperal Pyrexia."

J. Lamond Lackie (Edinburg Medical Journal) says that one should regard all rises of temperature after labor with grave suspicion, and that, when in doubt as to the cause, we should treat these energetically as real cases of puerperal septic fever, still points out that ordinary septic organisms are not the only causes of puerperal fever, and gives some illustrative cases. The first case of puerperal fever he records can be regarded as purely neurotic. There was absolutely no indication of sepsis, and the rapid disappearance of the high temperature when none but moral treatment was adopted, could not have occurred except in a nervous condition. Throughout the illness there was a striking discrepancy between

the temperature and pulse rate, the latter being often nearly normal, while the former was very high; and this fact helped one in diagnosis. The condition of the pulse is always a more important indication of the gravity of the case than the exact degree of fever. The patient was not suffering from mania. She had a fixed notion that she could not possibly survive labor, and during her puerperium she was so nervous and so expectant of death that the high temperature resulted. A second case illustrates the course, and some of the anomalies of puerperal scarlet fever. One of the anomalies would seem to be that, in puerperal scarlet fever, the incubation period may be very much prolonged. A third case was of puerperal influenza. In connection with a fourth case the author notes the occurrence of a rigor and high temperature after an intrauterine douche, and he asserts that he has always noticed that such a rigor occurred in cases in which the result of the douche proved that there was no retention of septic material. In cases where there has been urgent need for an intrauterine douche, the result has been no rigor but a rapid fall in the temperature, at all events, for a time.

He mentions those frequent puerperal cases in which fever results from acute constipation, from chill, from emotion, from congested mammæ, from sore nipples, and from reflex irritation. A puerperal patient may be attacked by any acute disease, but it is a good rule to suspect and treat all such cases as of puerperal origin.

Chronic Nephritis Without Albuminuria.

A. R. Elliott (Chicago Med. Recorder) mentions the fact that nephritis may progress to an immediately dangerous stage without the presence of albumin in the urine; even during the terminal stage, as shown by albuminuric retinitis, uremia and loss of cardiac compensation, this symptom may be entirely absent. While this condition is most frequently observed in chronic interstitial nephritis it has been noted, though rarely, in chronic parenchymatous nephritis and acute nephritis, even of the post-scarlatinal type. Chronic interstitial nephritis is especially insidious in its onset and variable in its clinical manifestations, while its frequency in persons of insurable age makes its recognition important. The absence of albuminuria, whether temporary or constant, increases the difficulty of diagnosis. He, therefore, refers to some of the more important symptoms which should make the physician watchful. Especially important is nocturnal urination. The healthy individual does not need to empty the bladder during the hours of sleep. If we can exclude local affections like those of the urethra, bladder and prostate, or systemic ones, such as nervous hydruria, diabetes, urinary acidity, pyelitis, calculous diseases, etc., the presumption is that in most cases the trouble is due to chronic nephritis. He thinks that insurance examinations should include inquiry on this point. Other early changes which should be investigated are the cardiovascular ones. Albuminuria as already stated, cannot be relied upon as evidence of the presence or absence of the disease. Casts are present in the vast majority of cases, but the author believes that their presence is not proof positive of nephritis. Toxic irritation of the kidney, of any kind, may cause them to appear. Several cases are cited in support of the author's views.

Cæsarean Section for Placenta Prævia, with Report of a Case.

P. E. Truesdale, in the Boston Medical and Surgical Journal, says that Cæsarean section is the operation of choice in the treatment of placenta prævia, complete or partial, when the child is viable and when dilatation and version, performed with sufficient rapidity to save the child's life, are rendered impossible by the pelvic diameters and the condition of the soft parts. In the hands of experts, the mortality in complete placenta prævia treated by version is, for the mother 18.9 per cent., and for the child between 65 per cent. and 70 per cent. In partial prævia the maternal mortality is probably not over 5 per cent., but the infant mortality in such cases probably is as high as 50 per cent. It is the high mortality of version, in complete placenta prævia, that makes Cæsarean section a rational method of procedure. Lateral insertion of itself does not justify section. So far, there have been reported thirteen cases of Cæsarean section for placenta prævia. In these the maternal mortality was 44.4 per cent. and the infant mortality was also 44.4 per cent. These figures, are, however, misleading, as in one case the operation was undertaken as a last resort when all other means had been tried, and in another case there was probably malignant disease of the cervix. In these two cases both mother and child were lost. In the second the child was shown to have been dead two days before operation. He excludes these two cases on the ground that they do not give fair statistics. The revised showing is, then, 11 cases with a maternal and fœtal mortality of 22.2 per cent. each.

Some Cases of Dilatation of the Bronchial Tubes after Measles.

T. Fisher (The Lancet, Oct. 31, 1903) discusses the distribution of bronchial dilatation in relation to the cause, local or gen-

eral, and then reports 5 cases (4 being under three years of age) in which the bronchiectasis occurred in the course of bronchopneumonia complicating measles. When the dilatation of the bronchi is limited to one lung or one lobe, there is usually a definite local cause in the form of an obstruction to the bronchus or one of its main divisions. An enlarged caseous bronchial gland or, more frequently, such a foreign body as a bit of candy, a small nut or bean may be the cause of the obstruction. The cases reported showed at the necropsy more or less marked dilatation of the bronchi widely distributed, along with bronchopneumonic lesions of various stages. In the case of the oldest patient, a boy of fourteen years, who died after being ill for nine years, the very extraordinary history was given, and apparently verified, that he had gone through five distinct attacks of measles. Each attack of measles occurred when either his friends or brothers and sisters were suffering from the disease, or when measles was prevalent in the school he attended.

Tobacco Deafness.

Wyatt Wingrave, in the Medical Press and Circular, refers to tobacco as a drug, the use of which is not only increasing beyond all proportion to the increase in population, but promises to extend to a still greater degree. Its responsibility for certain morbid visual changes has been fully established, and recent observations would seem to indicate that the frequent occurrence of deafness in tobacco amblyopia is more than coincidental. In his experience he finds that cases of deafness due to tobacco smoking may be classified into three groups: (1) Mechanical, or pneumatic; (2) irritative or catarrhal; (3) toxic or nerve deafness. In the group of nerve deafness the author brings forth seventeen cases, and in regard to them he emphasizes the following points: (1) They were all marked cases of nerve deafness (unattributable to other causes) occurring in heavy smokers. (2) The loss of low tones in 50 per cent. suggests an auditory equivalent for a recognized ocular lesion. (3) There was definite scotoma in four cases and impaired sensation of vision in eight of them. (4) The disease was symmetrical. (5) Eighty per cent. showed marked improvement on abstinence from tobacco, and, with supplementary drug treatment, three were cured.

Curettage in Puerperal Infection.

A. W. Lea (Journal of Obstetrics and Gynecology,) advocates curettage of the uterus for puerperal infection. The curette may be used either (1) to remove retained fragments of placenta or decidua, or (2) to remove as far as possible the mucosa of the uterus when this is infected. In the first case a blunt curette only is needed. For the second a sharp curette must be employed, and the operation is a more serious one. It is disapproved of by English authorities and the majority of German and American ones, both because of the accompanying danger and the impossibility of completely removing the infected tissue. The dangers attaching to the use of curette are: (1) Risk of perforation. This has doubtless often occurred, but can with care be avoided, and is therefore not a weighty objection. (2) Danger of air embolism. This seldom if ever occurs if curettage is deferred until after the third day of the puerperium. (3) Profuse hemorrhage. This can always be controlled by a hot douche and gauze packing. (4) Impossibility of complete removal of the infected area of the endometrium. (5) Risk by causing generalization of the infection. This is the greatest objection urged against curettage. Whether a blunt or sharp curette be employed, mouths of blood-vessels and lymphatics must be exposed, and may become the seat of fresh innoculation by organisms remaining in the uterus. Moreover, the protective layer of leucocytes found in the endometrium beyond the necrotic tissue is in danger of injury, and the spread of infection may thus be aided. Probably such injury seldom occurs, and in the most fatal cases no effective one of this kind exists. On the other hand, recent bacteriological experiments have shown that the old distinction between sapremia and septic infection can no longer be maintained, and that a fatal septicemia may be produced by saprophytic organisms. It is thus of the highest importance to remove infective material as completely and as early as possible, and clinically excellent immediate results are often found to follow the use of the curette. Ferre maintains also that the majority of cases of puerperal infection treated merely by douching suffer afterward from uterine symptoms, while those treated by curettage recover absolutely.

An accurate estimation of the advantages gained by the use of the curette is difficult, since only hospital statistics are available, and the type of infection in hospitals is acknowledged to be mild. Moreover, a large proportion of cases recover under other methods of treatment, and in the most fatal forms of puerperal infection the curette is too dangerous to be employed. While no general agreement exists as to the type of case suitable for curettage, all authorities agree that the operation is inadvisable in cases of (1) virulent streptococcus infection; (2) general septicemia; (3) peritonitis or

inflammation of the appendages; and (4) gonorrheal puerperal endometritis.

The Treatment of Bronchopneumonia in Children.

William P. Northrup (Medical Record, February 20, 1904,) says that bronchopneumonia is a disease characterized by irregularities. The prognosis is uncertain because, in the secondary cases the child is already exhausted by the previous disease. Give a young tissue, mixed infection of pus-forming cocci, in a subject exhausted by previous disease, one has all the elements to account for all the irregularities of onset, course, ending, and pathological findings, At the autopsy, masses are found in one lobe, or masses in all of the lobes, or perhaps, a whole lobe is involved. It is evident, therefore, that the pulmonary apparatus was the seat of what might be called a pulmonary erysipelas or cellulitis. The writer thought this view of the disease was advantageous in considering the treatment. With regard to prophylaxis, the speaker said that immunizing measles cases, when grouped in institutions, prevented diphtheria and the consequent pneumonia. In the treatment of bronchopneumonia it was most important to secure the admission of fresh air. There was nothing remarkable about having a sick-room at a temperature anywhere from 65 deg. to 40 deg. F., or for the nurse to wear wraps and gloves. He saw no reason for fearing that the patient would "catch cold." No one "got cold" from fresh air entering the nostrils or striking the oval of the face. The author had no fear of a fever patient "catching cold" in bed. The patient should be given an abundance of fresh, cool air, in small quantities at a time. It favored elimination, and was refreshing. The one thing in treatment easily forgotten was the need of tranquility and restfulness. Pneumonia patients were nervously susceptible to noise and confusion, and consequently a tearful grandmother must be removed and a congenial and tactful nurse placed in charge. It was also important to secure a free evacuation of the bowels. At the outset this should be effected by *full* doses of castor-oil, with or without a preceding dose of calomel. Indigestion should be carefully avoided, and this was best secured by careful regulation of the diet. It was especially necessary to guard against intestinal distention, and when this was present it should be relieved by high irrigations of the colon with saline solution. Excessive fever should be reduced by measures which would not disturb or injure the child. The clinical thermometer was often an actual detriment in a case of pneumonia. Instead of relying upon this instrument it was far better to watch closely the patient's appearance and breathing and use good judgment. What the thermometer read made very little difference. The ice-cap was hardly to be recommended because of the non-conducting properties of the hair; it was better to apply a moistened cloth to the forehead. The nurse should be advised to feel of the feet and watch the respirations rather than take the temperature. If the feet were cold, and the pulse poor, give a hot foot bath under the bed clothes, as it would prove, under these conditions, an admirable cardiac stimulant. Constriction of the chest and the use of heavy poultices should be avoided. The garments should be changed often enough to avoid maceration of the skin. The writer avoided steam tents; they were good in spasmodic laryngitis, but not in pneumonia, as they robbed the patient of oxygen and macerated the little one. The speaker said he had never seen anything but good from giving plenty of water and fresh air to pneumonia patients, and any who had seen the manifest improvement following the opening of the windows, even in the coldest weather, must be impressed with the advantages of this treatment.

An Early Case of Intussusception.

A. Jeffreys Wood (Inter-Colonial Med. Jour. Australasia,) reports the case of a child of 16 months, in whom a diagnosis of intussusception was easily made from the sudden onset of the affection, the lax abdomen and an unmistakable sausage-shaped tumor. Owing to the recent nature of the case (two and a half hours) and the typical position of the tumor in the region of the ileocecal valve, it was decided that an attempt to reduce the bowel with water was justifiable. The child was sent to a private hospital and three hours after the pain began vomited for the first time. Half an hour later it was anesthetized. The abdominal muscles were still lax, the tumor had increased to about four inches in length, the face was very pale and the pulse was 144 per minute and feeble. The buttocks were raised and water was run into the bowels by means of a No. 13 Nelaton rubber catheter attached to a douche can raised three feet above the buttocks; the bowel filled rapidly, and as soon as the child began to expel the water, blood and mucus appeared with the fluid. The tube was again attached to the douche, and the bowel was again rapidly filled from the same height. When this water was expelled the tumor could not be felt. The colon was then irrigated with a catheter attached by a rubber tube to a glass funnel. The bowel was first filled and then

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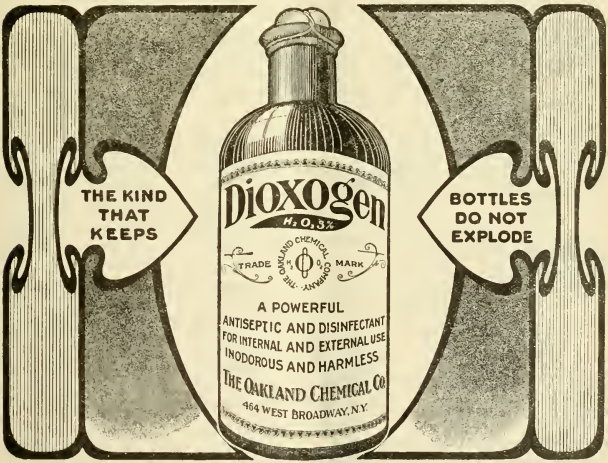
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was syphoned out, and as it was allowed to fill the funnel, gas was seen to escape freely through the water in large bubbles. The color of the face improved immediately after the second flushing, and the rate of the pulse fell to below 100 and its volume improved very markedly. A sound sleep for two and a half hours followed the reduction. On waking the child was very bright and played with her picture book. A week later there was no sign of recurrence.

Prognosis of Fractures of the Skull.

H. Graf (Medical Press and Circular(reports ninety cases. He says that seventy-seven of the cases were men and thirteen were women. Concussion of the brain was present in nearly all the cases after the cessation of the original unconsciousness. There was usually a stage of hallucinations; at and after this a susbidence of all symptoms. The total mortality was 28.31 per cent. whilst before this it had generally been somewhat higher. Meningitis was rare, and this the speaker thought was due to modern treatment (avoidance of washing out, probing, etc.), or the meningitis might be very late after the injury. In fifteen cases there was mental disturbance, in which alcoholism played a considerable part. Symptoms of clot were rare; they showed themselves as aphasia, paragraphia, convulsions, in part of the Jacksonian type. Disturbance of taste was observed twice, flow of fluid from Steno's duct once, associated with facial paralysis. Headache was an almost constant symptom; giddiness was also frequent, especially under certain conditions, as when the head was thrown back. In eleven patients there were labyrinthine symptoms, in seven vomiting, in three mental weakness, the "amnesie retrograde" of the French. There was also occasionally change of character, partly of an irritable, partly of a melancholy type. In twenty cases there was deafness of a nervous kind. The pathological examinations of the brain had shown various changes, mostly of a diffuse kind.

The Special Susceptibility of Children to Tuberculosis.

Pottenger (New York Medical Journal) says that tuberculous infection is very common in early childhood. A large proportion of those patients who, although infected, do not show acute symptoms during childhood, develop active tuberculosis in later life.

In seeking the cause of this frequent infection, aside from the habits of the child and the carelessness of the parent in bringing it in frequent contact with the bacillus, all of those which lower vitality at this time must be considered; and he would call special attention to the fact that there is a connection which seems more than coincidence in the time that tuberculous infection takes place and the time that the child is most apt to suffer from catarrhal conditions of the stomach and bowels.

More attention should be given to the care and feeding of children, so that their systems may be resistant to infection.

All tuberculous children, whether they have lesions in the glands, bones, lungs or any other part of the body, should be treated for their disease.

Some Dangers of Hypnotics.

N. Tirard, in the London Medical Lancet, says that (1) they may involve all danger; (2) the conditions under which they may procure undesirable results are not always limited upon the dose; (3) the danger may be limited to the patient; (4) it may involve the prescriber or dispenser; and (5) before the employment of a hypnotic, the bare symptom sleeplessness is perhaps the least important factor to be considered. He narrates several cases in which untoward effects followed the administration of common remedies in the usual doses. The writer concludes by emphasizing his conviction that in the use and selection of a hypnotic, sleeplessness is perhaps the least important factor to be considered, although it may be the sole symptom of which complaint is made. The cause must be ascertained, together with any indications of idiosyncrasy. The co-existence of other diseases must influence the selection of the hypnotic and even when for the individual case, a suitable hynotic case has been found, risks of repeating moderate doses must be borne in mind. Generally the dose has to be gradually increased, especially when the cause has not been ascertained or satisfactorily dealt with, but with some drugs—*e. g.* sulphonal, trional and tretonal—the danger appears to lie in the total quantity taken, even though each dose may have been small. But perhaps the greatest danger of all is incurred when the patient is given a prescription for a hypnotic, and this danger has certain analogies with the medicinal employment of alcohol. Many of us believe that at the height of fever, or in conditions of collapse, alcohol is often necessary, but it is never recommended to our patients for indefinite use, still less for increasing doses. Armed with a prescription for a hypnotic, patients commonly go on taking the drug long after the relief of the special circumstances for which it was prescribed, and the prescription may be used to facilitate the acquisition of large quantities of a dangerous drug obtained, perhaps, at several establishments in small amounts.

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Diabetes Mellitus.

Williamson (The London Medical Lancet, Jan. 23, 1904) says that for therapeutic purposes three forms of diabetes mellitus may be recognized: 1. Mild—when sugar excretion ceases on a rigid diet of nitrogenous fatty food. 2. Medium severity—when the sugar does not disappear on such a diet, but the urine shows no reaction with iron perchloride. Severe—when the sugar does not disappear and the urine gives a brownish-red reaction with iron percloride.

Most kinds of nitrogenous animal food and fatty food may be allowed in diabetes. Starch is less injurious than sugar, yet bread is the article of diet which causes the greatest difficulty, as most patients require some form of bread. He discusses the various bread substitutes and comments on their relative value. All beverages which are from carbohydrates can be taken. Ordinary beer is injurious and the amount of spirits taken should be moderate. Many patients suffering from mild diabates are benefited by a visit to Carlsbad or Nenahr. As regards drugs, the writer holds that sodium salicylate has a definite action in decreasing sugar excretion in certain milder cases of diabetes. It should be given in peppermint water, commencing with ten grains three times a day and increasing up to fifteen grams four or five times a day. But toxic symptoms must be carefully watched for. Opium, morphine, and codeine are sometimes beneficial, but when they are given, care must be taken to keep the bowels regular. In the most severe forms of diabetes with iron perchloride reaction in the urine, the alkaline treatment (sodium bicarbonate in large doses) is of some service in postponing the onset of coma. The bicarbonate is best taken in frequent doses in soda water or milk—two, three or four drachms being taken daily.

Shoulder Dislocations.

Keetley, in the London Lancet, January 23, 1904, says that the usually accepted limit for even attempting reduction of dislocated shoulders is three months. The symptoms of an old unreduced dislocation differ in some respects from those of a fresh one. Instead of swelling there is wasting of the deltoid and the absence of the head of the humerus from the glenoid is very obvious. But the projection of the elbow from the side is less, and the range of movement of the joint and of the scapula on the trunk is increased. The x rays are often of assistance. If no complication coexists the prognosis of dislocations two to four weeks old is absolutely favorable, up to the ninth week very good; after nine weeks bad unless a cutting operation be performed. The administration of chloroform in these cases is especially dangerous. Either no or very little anæsthetic should be used, or the patient should be put completely under the anæsthetic before reduction is attempted. Never attempt to push the anæsthetic during the operation. If the breathing stops while strong extension is being made, the surgeon should at once desist. The axillary vessels are often injured, as many of these cases have bad vessels due to advanced age, dissipated habits, etc. Nerve injuries are comparatively rare. The treatment of these old cases lies between making the best of the new abnormal joint by exercise, massage, etc., and attempting to effect reduction by means of (1) manipulation or extension; (2) open incision; and (3) excision. Reduction without cutting may reasonably be tried up to the end of the fourth month, except in old people with atheromatous arteries. If Kocher's method fails extension and circumduction may be tried, by means of Skey's nob, etc. The structure especially endangered is the axillary artery. Other methods of extension are continuous elastic extension by means of a rubber air pan in the axilla, and Stimson's couch, which is perforated to allow the arm to pass through, a ten pound weight being attached to the hand. He claims to have been the first surgeon to reduce dislocation of the shoulder-joint by open operation: this he did in January, 1890. It is difficult to preserve perfect asepsis in these operations for the following reasons: 1. The operations are prolonged. 2. The wound is large and deep. 3. Retraction is rough and prolonged. 4. The displaced head vacates a large space which does not fill up. 5. Drainage is contrary to gravity. 6. Several assistants are required. 7, 8, and 9. There are numerous chances of infection. 10. The patients are usually "bad subjects." When it is found necessary to excise the humeral head the stump should be wrapped in gold leaf to prevent adhesions. After a few weeks the shoulder should be reopened and the gold leaf removed. After the wound has healed passive movements should be begun, but abduction should be avoided for months.

The Etiology of Acne Vulgaris.

Dr Gilchrist (Journal of Cutaneous Diseases) gives the following summary of the results obtained in an investigation into the etiology of acne vulgaris:

1. Definite bacilli, which he names bacillus, acnes, were present in all smears taken from 240 typical acne lesions from eighty-six patients.

2. Pure culture of bacillus acnes were obtained from sixty-two lesions (chiefly acne

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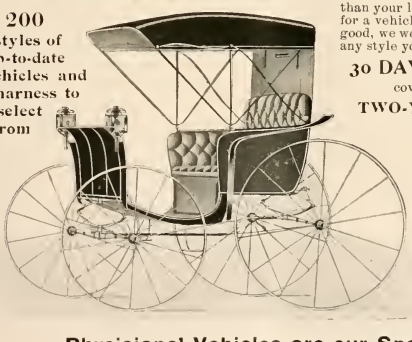

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nodules) from twenty-nine patients, eighty-two cultures being sterile (about seventy of these were sterile because the proper medium was not used), and the remainder showed either a growth of bacillus acnes mixed with staphylococcus pyogenes or epidermis albus, or the latter organism was in pure cultlure.

3. Sections of excised comedo, of an early acne papule, of an acute postule, and of five acne nodules from six patients demonstrated the stages of the disease. The sections from the acne nodules showed quite profound changes extending deep into the corium, surrounding in some nodules a magnified and marked hypertrophied follicle. The lesion was made up of masses of cells, many giant cells, plasma cells, which were very numerous in some nodules, but not in others, their place being taken by lymphoid cells or connective tissue cells. Very many polymorphonuclear cells were also present, and were massed in some sections so as to form miliary abscesses; numerous phagocytes were seen, and also many pigment cells, especially in one nodule, where they were in large numbers. The blood-vessels were numerous and dillated. In one section a large group of bacilli acnes were situated deep in the corium beneath the follicle, but in most of the section only a few small clumps or scattered bacilli were found. Some of the giant cells contained bacilli.

4. Bacilli acnes have been shown to be pathogenic in mice and guinea-pigs.

5. Bacillus acnes is present as a short, thick bacillus in the smears, but in cultures it often becomes much longer and thicker; and in old cultures it assumed distinct branching forms. It grows when planted *en masse* on acid glycerin agar, and forms a pultaceous, easily movable mass.

6. By the clumping of bacillus acnes by the sera of patients affected with acne vulgaris it is to be inferred that a specific toxic body derived from the presence of the bacilli in the tissues is absorbed by the blood, resulting in the production of a specific agglutinin.

The Treatment of Infantile Convulsions.

G. J. Ellis (New York Medical Journal) says that there are two kinds of causes, the direct and reflex. The direct are the acute infections, in which the initial chill observed in older patients is often replaced by a convulsion; exhausting diseases, such as continued diarrhea; toxic causes, such as drug poisoning and uremia; central lesions, such as tumors, embolism, thrombosis, hemorrhage, meningitis, hydrocephalus, cerebral syphilis, etc.; and diseases of a convulsive character, such as tetanus, epilepsy and pertussis.

The reflex causes are very numerous, among them being indigestion, intestinal parasites, foreign bodies in the ear and nose, dentition, and mental disturbance, such as fright. Rachitic infants in particular are disposed to an attack of convulsions on the slightest irritation. It is generally impossible to determine the cause while the convulsion is present. The prognosis should be guarded, for though the cause may be trivial, death may occur from exhaustion or from spasm of the glottis.

The warm bath and mustard plasters, applied to the nape of the neck, epigastrium, and soles of the feet, are favorite home remedies. Small time should be wasted on these if they do not act quickly. The best remedy at our command is chloroform, a few drops of which inhaled from a handkerchief relieve almost instantaneously. The intestinal tract should be thoroughly emptied, first by an enema of warm soapsuds, and then by calomel and soda, one-tenth of a grain each, repeated every hour until free purgation occurs. Should the stomach be suspected to contain irritating matter, syrup of ipecac, which is found in nearly every household, may be given. A child one year old may take a teaspoonful every twenty minutes until emesis occurs. Any recurrence of the convulsion is checked with the chloroform. High temperature indicates the application of an ice-cap. Exhaustion indicates stimulants, preferably alcoholic for infants. Muscular twitching or restlessness should be quieted by sodium bromide and chloral. Ten grains of bromide and five grains of chloral may be given in twenty-four hours for a child one year old.

The after-treatment depends on the cause. Any disease should be treated, the feeding regulated, and if no cause can be discovered, the bromide and chloral mixture should be continued.

Ovarian Sarcoma Developing from the Theca Externa of the Graafian Follicle.

Drs. Russell and Schenk (American Journal of Obstetrics) give a pathological report on a sarcoma of the ovary removed from a woman aged forty-nine. For three and a half years before operation, and beginning three years after the menopause, there had been irregular uterine hemorrhages. The tumor had a twisted pedicle and rose nearly as high as the umbilicus. The specimen consisted for the most part of small cysts, separated by rather firm trabeculæ with some larger-sized cavities formed by the breaking down of the septa; some of the cavities contained small papillary ingrowths. The stroma was made up of connective tissue, with spindle-shaped cells

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with long nuclei. The alveoli were filled by round cells with large vesicular nuclei, some which stained homogeneously, while in others the chromatin network could be made out. The cells seemed to have little tendency to invade the stroma. The round sarcoma cells bore a characteristic relation to the Graafian follicles. On examining a small Graafian follicle it was found to be lined "by an almost perfect layer of large cells with large vesicular nuclei, the cells being characteristic of the granular layer. The outer layer of cells, these forming the theca externa, had more or less completely disappeared, and many of them were indistinguishable from the sarcoma cells which everywhere surround the follicle." From the number of the follicles showing this condition it is very likely that the theca of the Graafian follicle was the starting-point of the tumor.

The Serum Treatment of Typhoid Fever.

Einhorn (Medical Record, January 16, 1904) goes over the work done with the anti-typhoid serum, and reports the results. He says: (1) The anti-typhoid extract is of specific therapeutic value against typhoid fever only; (2) it is a harmless preparation which can be given in large doses without any untoward effects; (3) it is an aid in differential diagnosis; (4) if given uninterruptedly in typhoid fever, it decreases the temperature and strengthens the pulse; (5) it shortens the duration of typhoid fever and diminishes or neutralizes completely the effect of the toxins of typhoid fever; (6) taken per os it naturally cannot cause any such complications as sometimes result from subcutaneous injections.

He finds that while the use of the serum does not seem to materially shorten the disease, it does improve the general condition. The sensory and nervous symptoms are especially much improved, so that some grave complications, such as sleeplessness, headache, restlessness, delirium, etc., disappear entirely.

The injections do not seem to be connected with any dangers, and only in one or two cases were even slight disturbances noted.

He believes, therefore, that the serum treatment of typhoid fever is now already of decided value, but that we shall soon have more potent sera.

Lumbago.

Growers (British Med. Journal, Jan. 16, 1904), states that lumbago is due to compression of the nerve endings in the muscles (muscle spindles) by inflammation of their fibrous sheathes and of the fibrous tissue in which they run. For the condition he uses the term "fibrositis," which may be rheumatic, gouty or traumatic. Muscular fibrositis in the arm constitutes brachial myalgia, and it is very common elsewhere—*e. g.*, stiff neck, pleurodemia, painful affections of the diaphragm, etc. This rheumatic fibrositis is seldom strictly symmetrical. It is more common in the second half of life than in the first, and there is often a family history of gout. Traumatic fibrositis is induced by sudden violent tension on tendinous and ligamentous structures. These so-called "muscle-strains" are very common. The duration of muscular fibrositis seems proportioned to the slowness of its onset. The affection of the arm is often prolonged and lasts for months. As regards treatment, attention is called to the valve of diaphoresis and rest. Diaphoresis will often avert an attack, but is only of value when used early. But rest is the one thing needed by the painful muscles. In brachial myalgia a sling should be used early. Massage and electricity should be avoided. Aperients are of the first importance in all rheumatic and pseudo gouty cases, salines being the most valuable. They should be taken on an empty stomach, so as to promote the flow of bile. The salicylates do but little good, except in the most acute forms. Counter-irritation with the actual cautery is sometimes of value. Deep hypodermic injections of cocaine repeated daily are often of great service in relieving the sensitiveness.

Some Forms of Chronic Abdominal Surgical Disease.

Bishop states (The London Medical Lancet, January 16, 1004,) that such diseases are found especially in connection with the digestive tract, either in this alone or in connection with the liver and pancreas, and the excretory ducts of the latter. Infective material in the biliary passages may cause cholecystisis leading to suppuration, empyema of the gall-bladder, and gangrene, or it may produce hemorrhagic pancreatitis. Sloughing and abscess. Such infective material may lead to or lodge in biliary calculi, which thus becomes the more direct cause of trouble, various tumors of the gall-bladder and especially cancer may follow. This is another argument for the removal of the calculi as soon as they give demonstrable symptoms and can be definitely located. Another class of abdominal complaints is composed of those affecting the large intestine. Peristalsis does not occur here under the conditions obtaining in the smaller bowel. To use the author's phraseology, "the small intestine with the stomach is the kitchen which pours its refuse into the slop-stone and drain of the cæcum and colon. Most morbid conditions affecting the large intestine are mainly chronic in character, and extend in their whole course over long

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intervals of time, although many of them signalize their presence only when pathological changes have reached a certain stage, after which their further progress may be much more rapid. A condition of difficult and painful defecation should always draw attention to the anus and rectum. Some cases of obscure pain in the latter may be puzzling. An ulcer may exist on Morgagni's valve, and for a long time elude detection. Hence in all obscure cases a complete rectal exploration is necessary. The sigmoid flexure is a favorite seat for cylindroma. The treatment of mucocolitis, in its many forms with and without ulceration, which may be specific, gonnorrhœal, simple, lupoid, herpetic, dysenteric, or cancerous, has been greatly assisted by the clearer ideas which have been gained of the actual condition of the interior of the gut since the more thorough use of the proctoscope and sigmoidoscope; the newer silver salts, especially protargol, have supplied us with agents which are not rendered ineffective by the rapid formation of an inert albuminate, as was the case with the older nitrate, but permit of far deeper and further reaching action upon the tissues and the micro-organisms which have penetrated them. He mentions, in closing, the necessity for constant observation of chronic cases with a view to the discovery, if possible of new symptoms which will throw light upon their earlier stages, and which may be as danger signals, so that effective surgical interference may be carried out whilst there is every reason to expect a successful issue and before dangerous complications have arisen, or at least before they have reached such a stage as to render all our efforts ineffectual.

Traumatic Epilepsy.

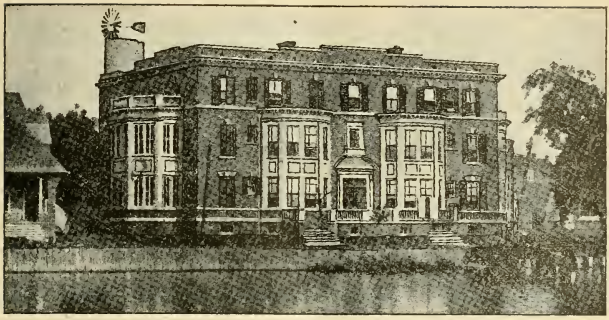
McCoy (Annals of Surgery, Dec. 1903,) mentions the great difficulty and almost impossibility of removing all the cicatricial tissue which, following head injuries, may cause sufficient brain irritation to set up epileptic seizures. Operation is justifiable, however, in all cases in which the seizures are referable to a recent trauma. The writer refers to a case of a boy who was struck on the head by a piece of concrete falling from a building. Immediately after the injury he was taken to the hospital in a semi-conscious condition. A compound fracture of the skull was found over the frontal and parietal bones on the right side, and there was a fracture running back into the occipatal bone. Still a third fracture extended down in the temporal fossa. The brain tissue was more or less lacerated. On the third day after the operation there was a convulsion on the left side. Attacks of this nature occurred at intervals for several months, and finally the area which had been involved in the fractures was again exposed, and found covered with cicatricial tissue. This was adherent to the edges of the bone, extended for a distance of two centimeters beyond the edges of the bone on the upper surface of the skull. It was closely adherent and incorporated with cortex over the entire area, and completely filled the cup-like depression in the anterior portion of the wound. This mass of cicatricial tissue was excised, the plug of tissue in the depression carefully removed, and the tissue dissected from the edges of the bone. A celluloid plate was inserted, but the seizures continued to recur, though less frequently than before. The area was opened a third time and a fresh plate was inserted. The subsequent history of the case is given, showing that the cicatricial tissue tended to recur, and that seizures were occurring from time to time.

Cancer of the Stomach; A Resume of Cases from the Standpoint of Diagnosis and Medical and Surgical Treatment.

Arneill (Denver Medical Times, January, 1904) discusses this subject. Cancer is sometimes mistaken for pernicious anemia, and *vice versa*. Differential blood counts and the finding of megaloblasts and normoblasts should assist in the differential diagnosis. Sometimes free HCl is found in cases of carcinoma; in all the nine cases of pernicious anemia reported there was an absence of free HCl, of pepsin, pepsinogen and labferment. An achylia gastrica is more suggestive of pernicious anemia than of gastric cancer. Furthermore, the motor power of the stomach is well preserved in pernicious anemia, but is nearly always seriously impaired in cancer.

The best means of determing the exact location of a gastric tumor is by palpation before and after inflation of the stomach.

The medical treatment of gastric cancer is merely palliative. The surgical treatment in the vast majority of cases is also merely palliative. Arneill knows of only one instance in which surgical intervention brought about a cure—a case of sarcoma of the pylorus. The X-ray treatment is disappointing. Pylorectomy is indicated in cases in which the growth is limited to the pylorous and is not too large, and in which there are no important adhesions to neighboring viscera, no secondary involvement of the liver, pancreas or lymphatic glands. In other cases gastro-enterostomy should be performed. He gives the details of several interesting cases of carcinoma. The author cautions against over-emphasizing or minimizing the importance of laboratory work in the diagnosis of gastric disorders.



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Miscellaneous.

Secretion of Urine by the Foetus.

Schaller (Cent. f. Gyn.) carried out some experiments to determine whether a regular secretion of urine takes place in the fœtal kidneys. His method is based on the observations of Mering, who found that phloridzin administered by the mouth produces glycosuria, which is not attended by an increase of the sugar in the blood. The elective action of phloridzin is first manifested in the kidneys. Schaller concludes that, if the drug be administered to a pregnant woman, a part of it will find its way into the fœtal blood; and if the fœtal kidneys be active, sugar will be found in the urine, and so in the liquor amnii, provided that the latter results in part from renal secretion in the fœtus. Hence the quantitive examination of the liquor amnii for sugar will give the measure of the urinary secretion. But if the fœtal kidneys be not active, little or no sugar will be found in the liquor amnii. His results showed: (1) That in the earlier months of pregnancy (fourth to sixth month), the administration of phloridzin led to the production of no sugar in the liquor amnii; (2) when pregnant women were given phloridzin shortly before the onset of labor pains, out of 20 cases the liquor amnii showed no sugar in 14, but a considerable quantity in six; (3) when the drug was given some time before labor, there was no sugar in the liquor amnii. Experiments on bitches advanced in pregnancy showed that when these were fed on ploridzin for eight days, 4·7 per cent. of sugar appeared in their urine; but on performing abdominal section, and examining the liquor amnii of the embryos, no trace of sugar was found. The writer promises to report later observations.—Indian Medical Record.

The Efficacy of Collargolum in the Treatment of Infectious Diseases, and the Many Indications for Its Use.

By Dr. Netter, Associate Professor at the University, Visiting Physician to the Trosseau Hospital, Paris.

Prof. Netter details at length 11 cases treated with endovenous injections of Collargolum and inunctions of Unguentum Credé, with brilliant results, all of them recovering rapidly. They consisted of one acute pericarditis; one pneumonia with purulent effusion; one cerebrospinal meningitis; a grave complicated scarlatina; two severe diphtherias; an acute ulcerative tuberculosis; three cases of typhoid, and one pyæmia.

The favorable action of Collargolum is first evidenced by the fall in temperature, which occurs either suddenly or gradually. This is particularly prompt when the medication is administered early. At the same time occurs a remarkable improvement of the general condition of the patient, the quick return of strength and appetite recalling the phenomena so often notified after the injection of antitoxin.

The local changes are sometimes equally rapid. By the next day phlegmons and gland irritations have lost their inflammatory character; and swellings are often so diminished that only traces of them remain. Ganglionic enlargements promptly resolve; pleuritic suppurations are absorbed; pericarditis and pneumonia are favorably influenced; and even valvular lesions disappear.

Based on his observation, Netter recommends Collargolum in pyæmia septicæmia, in all the various forms of puerperal infection, in infectious endocarditis, cerebrospimal meningitis, scarlatina, mixed diphtheria, grave typhoid fever, in certain tuberculoses of the pneumonic form, in pneumonia and in rheumatism with a tendency to visceral complications. In most cases inunctions of the Credé ointment suffice for the introduction of the medicament into the system. But when an immediate and vigorous action is urgently needed, recourse to intravenous injections should be taken.—Abstracted from Bulletins et Hémoires de la Société Médicale des Hospitaux de Paris, No. 37, Dec. 18, 1902.

Treatment of Tropical Dysentery.

Frederick Goldsmith insists upon absolute rest to the body and to the intestinal canal. The diet should be left off altogether for a time, or be wholly fluid and as little as possible. Although the patient may be almost continuously on the stool, that which is passed is not fecal matter at all, but merely the product of a highly inflamed bowel. The fæces tend to be locked up behind the diseased part, and to be retained there by the muscular spasm of the affected portion of the bowel, the lumen of which is still further diminished by the œdema present in the mucus and sub-mucus coats. To ensure the passage of the fœces it is necessary to render them as liquid as possible, and for this the sulphates of magnesia or soda are very suitable. The author usually gives one drachm doses every two hours, combined with a little tincture of opium, tincture of orange and chloroform water, till the motions become feculent, and then every four hours afterwards for a few days. To render the diseased bowel aseptic as far as possible, and to destroy the disease-producing germ, injections per rectum are valuable when the disease does not extend

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A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis.

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LAMBERT PHARMACAL CO., St. Louis, U. S. A.

Be assured of genuine Listerine by purchasing an original Package.

backward beyond the descending colon. Methylene blue nine grains, and boriac acid solution two pints, gives the most satisfactory results. The enema should be injected slowly, and if there be still any expulsive effort, the buttocks (which are raised on a pillow) should be pressed together till the spasm passes.—*The Australasian Medical Gazette.*

Rules for the Administration of Cocaine.

(*a*) The dose of cocaine to be injected should be proportionate to the extent of surface to be anæsthetized; it should never be more than eight or ten centigrammes.

(*b*) Cocaine should never be used in persons suffering from ocardiac affections from chronic affections of the respiratory tract, or from disorders of the nervous system.

(*c*) It should be injected into and not under the dermis of the mucous membrane or of the skin. This is the introdermic method of Prof. Reclus, in place of the hypodermic method. In this way the introduction of the substance within the veins, a condition that has occurred in several accidents, will be avoided.

(*d*) The injection should always be performed with the patient in the horizontal position. Afterward, if the operation is about the head, the patient can be placed in the required position.

(*e*) The cocaine should be absolutely pure; certain mixtures of cocaine with other alkaloids are of a particularly toxic nature.

(*f*) The quantity of cocaine to be used in a single injection should be divided, and a lapse of a few minutes should be allowed between the first partial injection and the following. During this period it will be easy to observe if any toxic effect takes place, for, it is well known, these will occur immediately after the first injection. This is the method of fractional injections.

(*g*) When used in this gradual and methodical way, cocaine presents over the other general anæsthetics (chloroform and ether) advantages upon which there is no occasion to insist, and which merely need mention: Absence of general effects of a period of excitement, of loss of consciousness, the possibilities of operating without the aid of an assistant, as the dentist's intervention is consecutive to, and not simultaneous with, the introduction of the anæsthetic agent.

(*h*) The duration of the anæsthetic effect is always sufficient for the performance of all the operations of ordinary surgery.—Indian Medical Record.

Marsyle.

The field in therapeutics for the use of cacodylates continues to enlarge every day, and the physician sees the number of applications for cacodylates continually increasing. The introduction of "Marsyle" is a new and striking example of this.

In theory we admit the existence of two cacodylates of iron:

1st. *Ferric Cacodylate*, which has resisted all therapeutic experiments: in fact, if we remember, first, that the molecular weight of cacodylic acid is 138 and that of iron 56, and on the other hand that the formula for the ferric salts is $Fe^2 X^6$, we can see that to administer 5 centigrammes of iron in the state of a cacodylate it becomes necessary to give 41 centigrammes of cacodylic acid, which is an impossibility. Ferric cocodylate is really an arsenical salt.

2nd. The *Ferrous Cacodylate*, which corresponds to the formula $Fe \cdot X^2$. This still gives 27 centigrammes of cacodylic acid for 5 centigrammes of iron; but it is hard to obtain and its stability is very uncertain.

As these two cacodylates are useless in practice it became necessary to find a third one which has been discovered in "Marsyle," and we owe it to the labors of Mr. Rebiere, chemist for the house of Clin & Co., of Paris.

Marsyle is a combination of one molecule of cacodylic acid with one molecule of iron with a minimum of oxidation; 5 centigrammes of iron are equivalent to 12 centigrammes of cacodylic acid which makes it a very convenient preparation.

It dissolves in water making a liquid of the pale green color of proto-salts of iron. Patients who have taken it in the manner prescribed testify, that all alliaceous odor arising from it is infinitely less than with cacodylate of soda. This probably is due to the fact that combined with iron the cacodylic acid in the digestive tract resists better all the reductive influences which transform it into a lower oxidized form.

Naturally as an arsenical mendicant it possesses all the tolerable advantages of cacodylic acid.

On the whole, the ferrous-arsenico medication, which is so frequently indicated—as often as depressions occur in the physical organism—has just been suddenly endowed with a product having the two inestimable and indispensable properties of being *active* and *manageable*. Unless we are very much deceived *Marsyle* will speak for itself.

E. Fougera & Co., Agents, New York.

Pulmonary Affections Resulting from La Grippe.

The prevalence of La Grippe, as an epidemic throughout the country, has attracted the attention of the medical profession, and many new and varied forms of treatment have been recommended for this unpleasant and oftentimes dangerous complaint. While

Antiphlogistine

PROPERLY APPLIED, IS UNQUESTIONABLY THE STRONGEST THERAPEUTIC FORCE IN SUCCESSFULLY WAGING THE MUCH-TALKED-OF

CRUSADE
AGAINST
PNEUMONIA

ANTIPHLOGISTINE IS A SCIENTIFIC PREPARATION HAVING A DEFINITE PHYSIOLOGICAL ACTION, AND THAT ITS REMEDIAL VALUE MAY BE FULLY REALIZED, IT SHOULD BE USED WITH CAREFUL ATTENTION TO DETAIL.

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APPLIED WARM AND THICK TO THE ENTIRE THORACIC WALLS, FRONT, SIDES AND BACK, AND COVERED WITH A CHEESECLOTH COTTON-LINED JACKET

PRODUCES IMMEDIATE RESULTS.

BY INDUCTION OF CUTANEOUS HYPERÆMIA (FLUSHING THE SUPERFICIAL CAPILLARIES), IT BLEEDS BUT SAVES THE BLOOD. THUS, ALL THE DISTRESSING SYMPTOMS ARE AMELIORATED. THE OVER-WORKED HEART, THE CONGESTION, THE PAIN, THE RAPID AND DIFFICULT BREATHING ARE PROMPTLY RELIEVED. THE PULSE IMPROVES, THE TEMPERATURE DECLINES, AND REFRESHING REST AND SLEEP ARE INVITED.

THE PATIENT RECEIVES ANTIPHLOGISTINE IN PERFECT CONDITION WHEN THE PHYSICIAN PRESCRIBES ORIGINAL PACKAGES.

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NEVER IN BULK.

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DENVER LONDON NEW YORK

this disease originating, as it undoubtedly does in certain climatic conditions, and in its first appearance characterized by the symptom of an influenza or severe cold, may not be considered in itself a grave affection, its tendency to leave certain organs in a debilitated or deranged condition, gives it an importance it would otherwise not merit.

We will refer briefly to a case that came under our notice some years ago. Miss S. had a severe attack of this disease. It yielded to treatment, but left the patient with a very troublesome cough of a bronchial type. We had previously to this ordered the refined petroleum, termed Terraline, with good results, and commenced to use it in this case. The patient had taken cod liver oil emulsion prior to this attack, but as it deranged her stomach, she gladly substituted Terraline. This she has taken at intervals for years since when suffering from colds or bronchial troubles, and always with best results, being convinced that its effect upon the mucous membrane is soothing and beneficial and that it has prevented the loss of flesh incident to such cases. She tells me she does not require sherry wine as a vehicle, for it is tasteless and in no way unpleasant. Whenever she takes cold she resumed its use.

A second case of cold and persistent cough, the patient being advanced in years came under my care. Mrs. C. had been suffering for weeks with a troublesome cough, and tried numerous remedies without relief. I advised her to give Terraline a trial. She did so, and to her surprise one bottle entirely relieved her, and she has the greatest confidence in the remedy, which she considers almost a specific in troubles of this character.

The value of petroleum as a remedial agent has been too fully established by the medical profession to require additional proofs of its efficacy. It is of undoubted value in colds, coughs and tuberculosis, and when administered in combination with creosote, its beneficial effects are speedily evidenced in the disease last named.

We prefer the refined product Terraline to all others, it being acceptable to the stomach of even delicate patients, easily assimilated and without any unpleasant effects.

We have recommended it in cases of lowered vitality, anemia and imperfect nutrition, with confidence that beneficial results would follow its use.

In cases of La Grippe we believe that bronchial or pulmonary troubles are apt to follow, even when the primary affection has been controlled by an appropriate course of treatment. It is an established fact that the sequalæ of this disease manifest themselves in the organ that is in a weak or an abnormal condition, be that organ the lungs, the heart, the kidneys or the liver. Our observation leads us to conclude that the former of these organs are most apt to be affected, and that bronchitis, pneumonia and tuberculosis are the diseases that most frequently follow grave attacks. In all such cases we consider Terraline, promptly and persistently administered the remedy, par excellence.

H. E. Woodbury, Washington, D. C.

Sanmetto Incomparable with any Other Known Remedy for Genito-Urinary Diseases.

Sanmetto is not new to me. The fact is, I have prescribed many gallons of it in the past eight years. I have never taken a dose of it myself, but suddenly feeling a need for it, I have ordered a bottle of it to take myself. Now as to the value of Sanmetto, it has never failed to produce beneficial results in my hands, and as a tonic and vitalizer to the genito urinary organs it is not only unequaled, but incomparably better than any other known remedy.

Harrisburg, Ills. J. W. Mitchell, M. D.

Acute Rheumatism.

Tongaline 8 ozs.

M. Sig. A teaspoonful four or five times a day until pain is relieved. Then a teaspoonful three times a day.

Received sample of Ecthol, and have used same on a bad case of Follicular Tonsilitis with a complete cure in twelve hours. This is certainly remarkable, and am very much pleased with it. At present am using it on a leg ulcer with remarkable results, and I can heartily recommend it to the profession.

Chicago, Ill. H. B. Hannon, M. D.

Doctor: If you knew of a germicide as certain as 1:1000 mercury bichloride solution; as harmless as hydrogen peroxide; and more convenient then either, wouldn't you rather have it than any other kind?

A new chemical germicide has just come out; it is di-succinyl peroxide, a fluffy, white powder, soluble in water, non-toxic, non-irritant, non-explosive. For convenience' sake it is called alphozone. A 1:2000 solution kills germs of any kind in less than a minute. It is non-corrosive so it can also be used for sterilizing surgical instruments as well as having almost unlimited therapeutic application. Send to Frederick Stearns & Co., Detroit, for a free sample and literature.

The Cough-Sequela of La Grippe.

Dr. John McCarty, of Briggs, Texas, (Louisville Medical College) in giving his

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that RESINOL OINTMENT is the best local application for Eczema and kindred skin diseases, and as a dressing for burns and other traumatic inflammations it is simply superb. The itching and burning of Pruritus Ani, Pruritus Vulvae, Proctitis, Itching and Inflamed Piles, Marginal Eczemas and Fissures, yield to its soothing influence as if by magic.

Water does not irritate if RESINOL SOAP is used. There is nothing just as good, and beware of the dealer who says so. Resinol Soap cures Dandruff, is fine for the hair, and keeps the skin healthy.

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C. S. HALEY, M. D., San Francisco, Cal.

I find Resinol an excellent preparation; as close an approach to being a specific as possible.
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INCOMPLETE ABSORPTION caused by *precipitation* and the *presence of alkaline salts* and *acids* has heretofore prevented the *realization* of the full therapeutic action of iodine.

SOLUBLE IODINE (Burnham's) is *rapidly absorbed* and *all utilized* by the system, and it is free from alkaline salts and acids, and is soluble in the gastric juices.

By its use the complete therapeutic action of iodine, or the iodides is attained, without any toxic effects.

One drop of this preparation is equivalent in therapeutic value to fifteen grains of Potassium Iodide.

The utility of Soluble Iodine (Burnham's) and its advantages over all forms in which the drug has hitherto been administered have been *thoroughly demonstrated.*

Sample sent on application.

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Founded on Clinical Experience

In *Medical News*, August 1, 1903, Dr. J. Leffingwell Hatch, of New York (formerly lecturer on Bacteriology and demonstrator of Morbid Anatomy in the University of Pennsylvania), writes of Thiocol: "My own experience with Thiocol has been quite extensive and varied. * * * In tuberculosis the night-sweats were stopped almost from the first; the fever was markedly reduced; expectoration was made easier and less purulent, while the cough became less persistent and annoying."

Syr. Thiocol Comp.

— Merck —

affords the valuable therapeutic properties of Thiocol (anti-tubercular), Dionin (cough sedative and expectorant), and Ammon. hypophos. (reconstructive).

Other forms of Thiocol (Potassium guaiacolsulphonate Roche) are: Powder; 5-grn. Tablets; and Syr. Thiocol Merck, 6 grn. to teaspoonful.

Clinical Reports to Physicians

MERCK & CO.
University Place New York

personal experience with this condition, writes as follows: "Ten years ago I had la grippe severely and every winter since, my cough has been almost intolerable. During January, 1902, I received a sample of Antikamnia & Heroin Tablets and began taking them for my cough, which had distressed me all winter, and as they gave me prompt relief, I ordered an ounce box which I have since taken with continued good results. Last fall I again ordered a supply of Antikamnia & Heroin Tablets and I have taken them regularly all winter and have coughed but very little. I take one tablet every three or four hours, and they not only stop the cough, but make expectoration easy and satisfactory."

An Efficient Galactagog.

℞ Glycerole of the Compound Acid Glycero-phosphates [Huxley] ʒiv
Distilled Water add ʒxvi
M. F. Solut.
Sig. One tablespoonful four times daily.

Each dose contains exactly four grains of the acid glycero-phosphates of soda, lime, potash, iron and manganese, in the exact physiological proportions laid down by Huxley, with a 250th part of a grain of strychnine.

It is pleasant to take and is the most reliable of the acid glycero-phosphate preparations.

Under the influence of this solution and suitable diet, the lacteal secretions are increased without fatigue to the mother. The treatment should be continued during lactation for the first three months at least.

Analgesic Salve for Rheumatism
to relieve local pain.

℞ Lanoline [anhydrous] ʒi
Menthol ʒi
Betul-ol [Nethyl-Oleo-Salicylate Comp.] ʒi
Beeswax ʒi
Misce fiat unguent. secundum artem.

Apply with friction where it is not too tender, or on lint covered with oil silk if very sensitive to rubbing. It gives almost immediate relief.

Gouty Eczema.

Luff recommends Liq. Plumbi for this very obstinate trouble. The following modification will be found very soothing, especially if followed by a simple dusting powder of starch and talc powder.

℞ Liq. Plumbi Subacetatis ʒi
Hux-Sal [Antiseptic Salt] ʒi
Aquae Sambuci ad ʒxvi
M. Ft. Applic.
Sig. For external application over the parts affected. Internally, one capsule of Colchi-Sal every two hours.

Morrhuol Creosote.

Some years have elapsed since Morrhuol Creosote was first brought to the notice of physicians as a remedy of positive value in chronic bronchitis, incipient phthisis, bronchial asthma, as a prophylactic against colds, as well as for dispelling those intractable sequelæ of La Grippe which are so often met with after epidemics of this disease.

It is true that some physicians are averse to prescribing the active principles of cod liver oil in the form of wine, elixir or cordial, or, indeed in any liquid form and justly so, for there can be very little if any of the active constituents of cod liver oil present in such preparations, owing to the fact that it requires strong alcohol to dissolve them when disassociated from the oil. It necessarily follows, therefore, that strong alcoholic fluids are necessary to hold them in solution, and as the liquid preparations containing more than 25% of alcohol are undesirable, the commercial wines and elixirs represent only an infinitesimal quantity of the active principles of cod liver oil.

Morrhuol Creosote is presented in capsule form, and contains in each capsule three minims of morrhuol [the active principles of cod liver oil discovered by Chapoteaut] and one minim of pure beechwood creosote, and is sold in bottles of eighty capsules; the genuine article bearing the imprint of Rigaud & Chapoteaut, Paris, France, the originators of this preparation.

Agents for the United States,
E. Fougera & Co.,
New York.

For Acne of the Face.

℞ Betul-ol [Methyl-Oleo-Salicylate Comp.] 1 gram.
Ung. Storax 1 "
Lanoline [Anhydrous] 20 "
M. F. Ung.

Apply every night with friction for ten days; then interrupt the treatment. Recommence after ten days again if necessary.

For Scabies.

℞ Icthyol ʒiv
Hux-Sal [Antiseptic Salt] ʒ s. s.
Glycerini ʒvi
Aque Distil ʒv
M. F. Applic.
Sig. Apply externally two or three times daily.

"Many a man is today worrying over a case or two of Pneumonia, Pleurisy, or Capillary Bronchitis, whose troubles would flit away like mist did he but know enough to put his patient into a jacket of Antiphlogistine."

Medical Summary, Nov. 1902.

PRUNI-HEROIN for Cough

(Syr. Heroin & Terpin Hydrate Comp.)

Have You Tested its Merits?

Indications: COUGHS, BRONCHITIS, LARYNGITIS, PNEUMONIA, ASTHMA AND PHTHISIS.

FORMULA,
Each fluid drachm represents

HEROIN	1-48 Grain
TERPIN HYDRATE	1-2 Grain
AMMONIA MUR	2 Grains

WITH

Wild Cherry Bark, White Pine Bark, Blood Root, Spikenard, Glycerine, Etc., in the most eligible form for obtaining the best results from these valuable remedies.

Dose—One to two teaspoonfuls.

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Contains: Zinc Sozo-Iodolate, Zinc Oxide, Resorcin-Eucalyptol, Ethyl Carbanilate, Oil Pinus Pumilio, Gallanol, Oil Rose and Lanoline.

An elegant and effective ointment for the complexion. Cures Acne, Pimples, Blackheads; removes Sunburn and Freckles. Should be used in connection with Acne Tablets No. 49. Samples for trial and literature submitted upon application.

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VIOFORM

Iodochloroxychinolin. A chemical containing iodine, used as an antiseptic dusting powder. Odorless, not toxic, six times as bulky as iodoform. Gives exceedingly good results in tubercular lesions. It dries secretion and prevents wound infection. Without local infection. In the form of gauze it also makes a superior dressing.

Hydragogin

Unexcelled as a diuretic and cardiac tonic. It contains tinct. digitalis 10 per cent., about twice as much tinct. strophanthus, the alkaloids of squills, scillipicrin and scillitoxin, and oxysaponin from herniaria glabra. Causes intense diuresis without severe cathartic, without vomiting or other annoying symptoms. Results are extremely favorable and of long duration. Alleviates frequency and severity of attacks of angina pectoris. Dose: 10-15 drops.

Eunatrol

Oleate of sodium. Stimulates activity of liver cells, promotes flow of bile and ready expulsion of biliary concretions. A cholagogue indicated in cholelithiasis, prompt and energetic in its action. Recommended by Gerhardt, Hoppe-Seyler and others. May be given continuously without harm. Dose: 4 grains.

Triferrin

Paranucleinic acid iron, made from cow's milk. Contains iron, phosphorus and nitrogen. A food, hematinic and nerve tonic. Increases amount of iron in the liver three-fold. Soluble, easily administered and readily assimilated without alimentary disturbance. Uninfluenced by the gastric juice, it is absorbed after the action of the alkaline intestinal juice. Dose: 5 grains. Also in tablet form with chocolate, 3 grains; triferrin, 4½ grains. Triferrin is also furnished in solution as Liquor Triferrini.

Antitussin.

Difluordiphenyl ointment 5 per cent, especially serviceable in whooping cough, since it relieves both the severity and the frequency of the paroxysm. Dose: 5 grams externally. Sample to physicians on receipt of 25 cents for 20 grams; 50 cents for 40 grams.

Fluor-Rheumin

Fluorphenetol ointment 5 per cent. (lanolin, vaseline base), most prompt and powerful in relieving pain, whether of neuralgic or of rheumatic origin. Dose: 5 grams externally. Sample to physicians on receipt of 25 cents for 20 grains; 50 cents for 40 grains.

Fluoroformol

Watery solution of the gas $CHFI_3$ (2.8 per cent). Tasteless, not toxic nor irritant. Its chief value is shown in the treatment of pulmonary tuberculosis, in which before the formation of cavities it causes cicatrization of the part involved, and consequent recovery. In local tubercular lesions of the joints, glands or skin (lupus) it gives remarkably favorable results. In acute pneumonia, it not only relieves the patient's distress but also reduces the temperature and cuts short the attack. Dose: one tablespoonful four times daily. Sample bottle (1 lb.) to physicians on receipt of one dollar.

Pankreon

Virtually the pancreatic gland. Resists stomach digestion for five hours. In dyspepsia, achylia gastrica, and their concomitants. Dose: 7½ grains, powder, or tablets.

Urosine

Quinate of lithia. Urisolvent. In gout, stone in bladder and kidneys, uric acid diathesis generally. Dose: 7½ grains. Tablets or in the more eligible form of an effervescent powder.

NEODERMIN EUPYRINE DYMAL VALIDOL DIFLUORDIPHENYL FORTOINE
BISOLVAL. CAMPH. AMINOFORM GALLOGEN CHININUM LYGOSINATUM
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Successfully Indicated in Diet in cases of

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A Diet of SPECIAL DIABETIC FOOD should show a decrease in sugar after two weeks' use, increased strength, relief from thirst, and much better rest at night.

"All these preparations are the best that skill, expert use and capital can make, and a very careful examination, both scientific and practical, has shown that every [illegible] made by the manufacturers has been fully confirmed as true."—AMERICAN ANALYST.

Special Offer to Physicians

On application we will send an order on Messrs W. C. Stronach & Sons, Raleigh, N. C., R. L. Christian & Co., Richmond, Va., or the nearest grocers who carry our goods for sample of [illegible]

Farwell & Rhines Watertown, N. Y.

Local Anesthesia.

By F. Gregory Connell, M. D., Surgeon to St. Vincent's Hospital, Leadville, Colo.

Local anesthesia is usually accomplished by freezing or by the injection of cocain or analogous preparations. The former is most unsatisfactory, owing to the pain of the freezing and thawing and the tissue changes which it causes.

The chief reason for the existence of the cocain substitutes is the danger with cocain of systemic poisoning from its absorption. Out of 250 reported cases of cocain in poisoning, thirteen terminated fatally. The author himself had three cases of evil effects in a series of 50 cocain injections, while in a series of over 80 cases in which Beta-Eucain was the anesthetic used, no such symptoms were manifested.

Beta-Eucain has for its most characteristic and advantageous features the following: (a) Non-toxicity, the fatal dose being between 6 and 7½ grains per 2 1-5 lbs., of body weight; there is practically no possibility of such a dose being injected in the course of an ordinary anesthesia. (b) It may be sterilized by heat without the loss of any of its properties. (c) It will not deteriorate or decompose with keeping and (d) it will not increase the tendency to hemorrhage to any marked degree; vasomotor paralysis and secondary hemorrhage occur less frequently than with cocain. These points have been most influential in placing Beta Eucain as the local anesthetic of choice, and its use is being rapidly increased.

The author further advocates infiltration anesthesia according to Schleich and that according to Braun, the latter combining adrenalin with cocain or Eucain for this purpose. This combination has the advantage of a hemostatic action and of intensifying the anesthesia.

Regional anesthesia is also highly recommended. It is the injection of a 1% to 3% anesthetic solution into the sensory nerve that supplies the field of operation, usually at a convenient point between the central nervous system and the site of operative interference, though in some cases the nerves may be injected when exposed in the operative wound. A combination of infiltration and regional methods is usually employed, the former for the skin and the superficial parts and the latter by the direct injection into the nerve. When it is inconvenient to expose the nerve by dissection, and injection into the perineural tissue will, as a rule, be found ample and sufficient. The injection should be made into the region of the nerve to be interferred with, and the nerve surrounded by what Matas terms an "anesthetic atmosphere." This "blocking," as shown by the splendid work of Crile and of Cushing on the subject of shock, also prevents centripetal impulses from reaching the centre, thus removing one of the most important if not the chief cause of shock.

The advantages of local over general anesthesia are readily apparent. The former should be used as an adjuvant to, when not possible as a supplanter of the latter. As Von Mikulizes has said, "the question of today is not which is the safer anesthetic, chloroform or ether, but in what cases can local anesthesia be substituted for anesthesia by inhalation."

An elegant lithograph in eleven colors of a Medicine Man of the Sioux Indians has been sent to every physician in the United States by the proprietors of the Tongaline Preparations and Ponca Compound.

Any physician who has not received this handsome and artistic reproduction of a famous Indian Chief can easily obtain such by writing for it to the Mellier Drug Company, St. Louis.

Abstracted from Annals of Surgery, Dec. 1903.

The Charlotte Medical Journal.

Vol. XXIV. CHARLOTTE, N. C., APRIL, 1904. No. 4

Some Clinical Observations on the Prophylaxis and Treatment of Uric Acid Conditions.*

By Dr. J. C. Walton, Danville, Va.

The importance of promptly recognizing the immediate and remote effects of the baneful influence of uric acid excess on the blood and tissues of the organism and the good results from the proper management of such conditions contrasted with the unsatisfactory results frequently found in their treatment is my apology for addressing you upon this well worn and hackneyed subject.

How much of function and of life might be restored and maintained by the intelligent management of such conditions? How much suffering, heart disease, chronic nephritis, arterio schlerosis, and many other similar conditions averted by neutralizing the effects of this irritant upon the tissues. Statistics show that about one-third of all cases of heart disease are due to rheumatism. I believe that a great many cases of chronic nephritis, and my experience corroborates it, are undoubtably due to the irritating effects of the uric acid upon the uriniferous tubules. I have no new theories to exploit, but having had rather unusual facilities and considerable experience along these lines in sanitorium work where the patients were kept under close observation and were enabled to get the benefit of modern methods of treatment, especially as regards diet, regimen, etc., I will as briefly as possible give the line of treatment found most satisfactory in such conditions and can commend the same. The cases treated included many of gout, rheumatism, myalgia, sciosciatica, lumbago, neuralgias, chronic nephritis, arterio schlerosis and gastro intestinal troubles. A careful urinary analysis was made in nearly all the cases and almost invariably a large excess of uric acid was found, which gradually subsided and approached the normal as the disease yielded to treatment. A noticeable fact was that the more chronic the conditions the less amenable it was to anything like drug medication and the nearer we approached the lines of Physiotherupy, or nature's own methods, the more satisfactory were our results, including such measures as diet, exercises, clothing, water drinking, bathing, hot air, electricity, massage, etc.

Diet; is of vital importance. No matter how thorough and complete elimination may be you have got to limit the uric acid intake while trying to increase the output to the utmost. Avoid red meats, pork and beef, tea and coffee, cocoas, tomatoes, rhubarb and an excess of sweets and starches. Allow fruits, vegetables, mutton, fowl, fish, oysters, cheese butter and milk. Whether tea and coffee, according to Haig, contain large quantities of uric acid or their equivalent Xanthin compound, I am not prepared to say, but I believe that they are especially unsuited for rheumatics. One case that I recall who after returning from treatment at Hot Springs, Ark., and his rheumatism persisting notwithstanding a rigid diet otherwise, with the single exception of his coffee, and after stopping the coffee the disease promptly subsided. I have been impressed with this fact sufficiently often in other cases to convince me of the bad effects of coffee, tea and chocolate under such conditions.

Exercise, especially in the open air. Human being like plants require an abundance of fresh air and sunshine. Keep the skin, bowels, kidneys and all of the eliminating organs at work. Lack of exercise, overeating, drinking too small quantities of water, and the consequent retention of toxic substances in the blood; non-elimination, auto intoxications are sources of the most potent causes of disease. Get a hump on yourself; step lively and sweat a little and keep your sewers open. There is one thing a rheumatic should never do, i. e., give up; keep going. The worst case of arthritis deformand I ever saw, ankylose joints, bad heart, pronounced hopeless by the best physicians gets for a time relief from his pain with hot air and keeps on the road constantly and says that the only thing that has kept him alive is his full determination not to give up the ship. In regard to auto intoxications: In a recent conversation with a noted New York surgeon who is celebrated for his hard horse sense, remarked that the most valuable lesson of a busy life was the importance of recognizing auto intoxications, especially of the gastro intestinal tract as the majority of mankind are poisoned by their own toxines.

Clothing—These subjects are very susceptible to sudden temperature changes and should wear flannels the year round; light woolen, of course, for warm weather, as the heavy ones are too depressing.

Water Drinking—It is surprising how few people drink enough water—water be-

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ing the natural sewer of the body, the great solvent and eliminator, flushing out all the channels of the body, eliminating and dissolving the toxines, keeping the secretions going and promoting a general feeling of well being. Drink 1rom one to four quarts daily. Don't drink much during or after meals, as it interferes with digestion by diluting the gastric juice. Always drink pure water, preferably a good alkaline mineral water containing a good per cent of potash and soda, as they are probably the best acid solvents.

Bathing—The skin is by far the best channel for the elimination of uric acid, and other noxious products and they can be more rapidly and safely eliminated this way than any other. The skin is rather a lazy, sluggish organ; the pores are easily clogged up and it frequently requires a lot of stimulation by friction, heat, etc., whipping up, you might say, before it can be made to do its duty and perform its functions. One of the worst cases of gout I ever tackled, was a man of 30; came on in infancy. He had been to Hot Springs three times, with very little benefit. At the beginning of treatment it required 40 minutes in a hot air cabinet at a temperature of 165 degrees to produce a good sweat; later as improvement progressed, the perspiration came on in shorter time, and finally in 20 minutes and as the action of the skin approached the normal, the disease subsided and convalesence was rapid. In private practice hot baths are most convenient, but in institution work the Baruch tonic bath is far and away ahead of any system of baths known to the medical profession. By means of the hot air cabinets we can regulate the perspiration and get all of the elimination needed, and these can be followed by a system of graduated douches which tone up the nervous and vascular systems and act as a powerful reconstructive and tonic and prevent the taking of colds the bugbear of that abomination, the Turkish and Russian bath.

Dry hot, or super-heated air: One of the most rapid eliminators of toxines known, so much so that Hare, in his system of Therapeutics states that there is sometimes danger of lighting up an acute exerbation of gout or rheumatism from too suddenly throwing into the circulation large quantities of uric acid. This method of treatment is admirably adapted to all painful and inflammatory conditions, especially sprains, luxations, chronic and subacute articular rheumatism, synovitis, ankylosis, adhesions, exudations, deposits, etc. It is astonishing how old deposits and adhesions, unless organic in nature, can be dissolved and broken up, especially when followed by judicious massage.

Electricity, especially static. I know of no agent as effective for the relief of all painful conditions whether of joints, nerves or muscles, and as a general all round tonic, sedative or invigorator than static electricity. It is simply invaluable, old sciatiac, lumbago, the pains of locomoter ataxia and general neuralgic condition, frequently yield to static electricity, after all known measures have failed. As a sedative, as a hypnotic and in all neurasthenic conditions, it is unrivalled. Finally an invaluable adjunct for all these is a god masseur. A good one is hard to find, but they are simply indispensible.

In conclusion, gentlemen, while the short time at my disposal, does not allow me to do even approximate justice to this important subject, and the most I could hope for is to call your attention briefly to a few of the important landmarks in the prophylaxis and treatment of such conditions.

A BRIEF REPORT OF CASES.

Mr. H——, aged 30, inveterate case of sciatica, right side of over a year's duration, complicated with subacute articular rheumatism of the left knee joint. Usual treatment, Baruch baths, electricity, etc. Case very rebellious, and only finally yielded to bombardment of the nerve with heavy static sparks daily. Dismissed case cured after four weeks' treatment. This case strikingly illustrates the value of electricity.

Mr. W——, prominent attorney, ill more than a year. Case pronounced rheumatoid arthritis, and prognosis hopeless. Had spent some time in hospitals and at Hot Springs, Va., and had exhausted all of the usual orthodox treatment with no benefit. General condition very bad; required large doses of opiates at night and rested very badly. Both shoulder joints very stiff and painful could not use arms or hands. After trying the usual treatments with no benefit whatever, and as a dernier resort, put him upon hot air and massage, using the hot air for one hour daily, followed by thorough massage, with gradual relief and complete recovery in a few weeks. Has remained so. This case strikingly shows the benefit of hot air and massage, and I don't believe anything else would ever have cured him.

Young man was affected with attacks of rheumatic gout from infancy. Has been to Hot Springs, Ark., three times. Disease confined to the feet and knees. Baruch baths and electricity effected a cure in a few weeks. Relief from the baths in this case was striking. Another case, skiagraphs, showed a calculi in each ureter. Patient suf-

fering considerably with pains over the kidneys and ureters. Two weeks' treatment, with Baruch baths and static electricity, entirely relieved pain and apparently produced a cure. Patient left suddenly and unfortunately was unable to get another picture. Was well when heard from several weeks later.

Some of the Causes of Failure to Obtain Proper Results in Gynecological Work.*

By Dr. W. L. Robinson, Danville, Va.

I enter upon the discussion of this subject, realizing that many opinions will obtain among surgeons who in a retrospect of their individual work will view it from the prominence of the disasters which mar their respective records.

Self-condemnation will sharpen the interest in even this imperfect presentation of the subject and I trust the discussion evoked will impress truths full of useful suggestion.

Gynecology is becoming less and less medical and more and more surgical; and the practice of gynecology is becoming more and more governed by broad surgical principles. The organs upon which the gynecologist has to work are so largely wrapped up in the sentimentality of the woman's life that he he is forced to act as often in obedience to this sentimentality as to the surgical indications. The selection of proper cases upon which to operate demands a training and skill not less important than the perfected technique and artistic handling of the knife.

One of the most prominent causes of failure is the want of thorough study of the individual case. Her peculiarities and whims should be considered, the family history in its minutest detail should be listened to with active ears and great patience. for often timidity and dread operation makes her forgetful of much that should be told.

Let us bend every energy to learn diagnosis, to diagnose not only the prabable malady requiring operation, but plow deeper, analize by exclusive, by thorough and by repeated search the real pathological condition which will either be or not be benefited by operation.

Such thoroughness and proficiency can be obtained so that in most cases the earnest, intelligent worker will not have to wait until he invades the abdomen to tell what trouble lurks there.

In studying the individual case, we should when opportunity permits, estimate the strength and resistive power of the patient; for instance, one who could not bear an anæsthetic more than thirty minutes should not be kept under it sixty minutes. To risk the life of the patient for a special technique is poor surgery. Our manual training school should enable us to operate rapidly, for it is as important as to know how to be painstaking and exact. We should look most carefully into the class of neuresthenics, originating from lesions causing what is styled reflex neuroses. You may find an old lacerated cervix or endometritis or adhesions in appendicital region, cases of long standing, whose minds have drifted into a morbid channel, run so persistently, continually and unvaryingly therein that no process of reasoning, no improved environment can impress, no removal of original causes by surgical means effects. Such cases I believe often have changed cell conditions that to operate or promise relief not only means failure, but bars legitimate cases from seeking surgical aid.

Probably the most potent cause of our failure is defective aseptic and surgical technique leading to adhesions from infection and exposed surfaces. Asepsis is too well understood to dwell on its prime importance, but I will urge the absolute necessity of having as few assistants as practicable and let no one invade the cavity except the operator. Many violate this rule. There is no direction in the preparation of your patient which is not essential, whether it be days before the operation or the day preceding. The selection of purgative, heart tonic, urine test, control of her nervous system and knowledge of proper preparation just before going on the table should not be taken for granted, the operator should know all has been carried out.

Next in order to aseptice technique is gentleness, everything within the abdomen should be handled with velvety touch, the manner of handling the intestines to keep them inside the cavity, the walling off and even the care of withdrawing gauze strips will measure the amount of shock, the sum total of adhesions and the comfort or distress of patient for days following operation. Your training in plastic work will tell by skill in covering all raw surfaces, replacing intestines in proper location, the omental covering and the exactness of apposition of incision in all its layers. See that you have corrected all trouble that should be dealt with, search for every offending cause while inside, and if possible, carefully correct it. To remove an organ and leave a displaced uterus or offending

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appendix or bowel adhesions is so incomplete and disastrous that it were better not to have operated. Don't be content to correct some insignificant lesion when symptoms were grave enough to demand invasion of the abdomen.

So carefully should we perfect our toilet every exposed peritoneal surface should be covered by adjacent peritoneum. Where no pus exists or even pus is present, so it is carefully sponged out, you can fortunately close the incision without drainage.

So far as practicable control all oozing points that the cavity may have as little material left for adhesions, but especially for infection; in fact, the prominent idea should be that the operation should be so complete as not to demand drainage. The train of evils which follow in the wake of drainage are numerous, bowel obstruction from adhesions, fecal fistule from pressure, vesecal complications and that special blot on abdominal surgery, hernia.

Much has been written on how to prevent hernia, the drainage material which separates the fascial strength is a cogent factor and the subject for earnest thought is when conditions require drainage how best to accomplish it.

For many reasons the drainage from the vagina is most desirable, the dependent position and the rendering it safe to close the abdominal incision thereby avoiding hernia is a strong argument in its favor. The drain material can be easily cared for and protected besides vaginal secretions are germicidal and protective.

The tendency not to drain is growing in sections north of us, but let not the pendulum swing too far in its radical field. If the pus is sterile, your cases will bear it all right, but in sepsis of virulent type, not only drain but first wash out by thorough irrigation every atom of infective material practicable, and that which is not washed out will be disintegrated into small particles, so that the lucocytes can take care of them, still drain the sacque if the sacque can't be removed, for pus producing surfaces must not be left without drainage.

Again I go back to hernia and ask how to prevent it. From the through and through suture to the minute sub-division of suturing each layer from peritoneum to skin, surgeons have discussed, practiced and written world without end, but he who avoids injuring the tissues within the incision, who makes clean incisions and keeps the field aseptic, who approximates like tissues accurately, especially the deep fascia, puts proper tension on his sutures and so supports the abdominal muscles by properly applied dressings and support with firmly adjusted adhesion strips, that in vomiting no strain be put on stitches, does clean work and personally controls the after treatment, will obtain best results.

When we review the fight between advocates of the vaginal route and those of super-pubic, I am convinced the selection of the method accounts for many failures. The prompt recovery from operation, nervous shock and distress, the avoidance of hernia makes the vaginal method seductive, but those of us who have noticed the amount of adhesions around the bladder and sigmoid inhibiting peristalsis and the subsequent distress tells unmistakeably the pathological conditions never reached, not dealt with, unseen, unknown by the vaginal surgeon. A Pryor, a Jacob, a Goff, perchance, may negative this picture, but the exceptions only prove the rule. Again, how often our patients come back with dragging sensation after resection of ovaries or removal of same, because we failed to shorten the round ligaments or stitch up the ovary, even when working super-pubically; how many in our ranks even attempt such relief through vagina. Within the month a beautifully illustrative case was in our hospital. A year or more previously vaginal hystericology was performed leaving the functioning ovary behind. The ovary was attached high, exudates aggravated its pathological habitat, and it was found in a dense mass of adhesions, had to be continually dissected out, adherent to bladder, sigmoid and rectum, firmly seated on the promontory of the sacrum, a hydra-headed cyst, destroying the peace and health of the subject.

Had the primary operation been above the field of vision would have obviated such result.

I mean to impress that the judicious selection of route in operation largely determines our success or failure in ultimate results.

The failure to carefully watch and direct the after treatment in complicated cases will entail future suffering on the patient and justly bring reproach on the operator. When diseased parts are torn asunder and areas left denuded with nothing available to cover them, the tendency to prompt reformation of adhesions is inevitable and the fight must be waged along the line of keeping down inflammation by ice bags, purgatives above and enemas below to keep up not infrequently the peristalsis of the bowel and the serus drainage.

There seems to be undue haste on the part of the patient and tacitly endorsed by some operators to get to work or take improper exercise too soon after operations.

The repairative powers, length of incision, uninterrupted recovery should indicate in some measure the length of time to remain in bed and amount of physical exertion afterwards. Besides the surgeon would outline the course to be pursued for months. It requires something more than primary healing to make strong, something more than exudate sealing over raw surfaces to restore resistive power, something more than a few weeks for crippled organs to accommodate themselves to new conditions and resume their normal functions.

No stronger evidence can be adduced than the role played by very many patients. How many insinuate for months and months that the same old trouble is coming back and they see no improvement, which would justify going through a like ordeal? Yet we regulate their secretions, tone them up, encourage and caution them most earnestly and as the year rolls around the silvery lining broadens until the cloud vanishes.

One of the most important questions to consider is the administration of anæsthetics. It is a grave mistake to think every doctor can give chloroform or ether properly, only the few who fail to keep one on tension while operating, either recklessness obtains on the one side or timidity forces you to operate with rigid muscles obstructing or bowels extruding, thereby causing traumatism either in compressing them while patient is heaving or in the effort to return them to the abdominal cavity. There should be in every locality a man trained for this special work.

SUMMARY.

1st. Failure to properly investigate the conditions in each individual case.

2nd. Erroneous and incomplete diagnosis resulting in failure to correct causes of trouble.

3rd. Defective aseptic and surgical technique, leading to adhesions from infective and exposed raw surfaces.

4th. Failure to estimate the resistive power in individual cases. One class requiring rapid work and limited time of anæsthetic, the other class painstaking, exact work and perfected technique.

5th. Failure to recognize that cases or neuresthenia of long standing are rarely curable by surgical means.

6th. Too much special study on one subject to exclusion of proper consideration of other diseases.

7th. Impatience on part of surgeon and patient for immediate results and meddlesome interference before nature has accommodated organs to the new conditions.

The Management of Normal Labor with Especial Reference to After-Treatment.*

By Dr. J. S. Irvin, Danville, Va.

Mr. President and Gentlemen of the Association:

It is not my intention to advance any new method for the management of Normal Labor, but to call your attention to things we all know, but which the majority of us neglect. The fact that Normal cases are neglected can be verified by referring to the large number of our own patients we are treating with tampons and pessaries—how many go to the Gynecologists? and the articles in almost every journal and before every society meeting, exploiting the best or a new method for correcting displacements of the Uterus, etc.; and if you agree with me that a much larger per cent of these patients had a Normal delivery than abnormal—for the reason that complicated cases are treated for fear of trouble—some one is to blame and the fault will inevitably fall on the general practitioner, who is usually the obstetrition.

When we consider that a woman after normal labor should be as perfectly healthy as she was before and when, after she becomes pregnant, she places herself in our hands for proper care, then if she is neglected, it is certainly criminal neglect.

Why are these patients neglected? The chief reason is that the general practitioner as a rule actually hates his obstectric work —which is by far the most important branch of his practice—or does it reluctantly, on account of the many disagreeable features connected with it—unavoidable delays, unseasonable hours, etc. The Laity expect more or less trouble as a matter of course and are satisfied if lactation is properly established and they are allowed to get up on the ninth day, whether well or not. Furthermore and instrumental treatment after confinement is so seldom practiced, except in desperate cases, that any undue attention is looked upon with suspicion by the family and friends, so much so that often the reputation of the physician is risked, especially if he is a young man, when he interferes with nature in any way. The matter of pay has to be considered, the fee is so ridiculously small that the busy practitioner hasn't the necessary time to devote to these cases except at a financial sacrifice.

How are they neglected? The fact that some form of septicinfection, mild or severe, interfering with the normal involution of the uterus and adnexa is responsible for

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a large per cent of the pelvic troubles following confinement, makes the explanation self-evident.

Malignant, puerperal septicaemia, is now very rare, but child bed fever, I regret to say, is not rare.

It has not been explained why some of the infections are malignant and others mild, while apparently the conditions are the same. Call it milk-fever or what you will, a large per cent, I might say a large majority, of these cases have some degree of post-partum sepsis. Very often this septic condition is overlooked entirely, the patient feels badly, there is no chill, and the temperature doesn't go above 100 degrees. Again there is a slight chill, temperature 101 to 103 with severe mammary pain—all symptoms rapidly subsiding within three or four days.

These patients are frequently treated for threatened abscess of the breast. It has been my experience that every puerperal woman who has chill and fever will suffer with mammary pains. These little infections seem very insignificant, but their sequlae are disastrous—the patient nearly always gets up at the usual time, but is weak and finds that it taxes her strength to nurse the baby. Within a few months there is every indication of a chronic pelvic trouble—a large displaced uterus, endometritis, salpingitis, etc., all or any one of which will almost invariably follow any mild or severe puerperal infection, interfering with the normal involution of the uterus, unless the trouble is corrected in its inscipiency.

Granting that puerperal sepsis is of a common occurrence and with such disastrous results and granting that every womb is infected to a greater or less degree— not losing sight of the fact that wounds in this locality are more liable—then our first duty in the management of normal labor would be to use every means to get the resisting power of the patient to the maximum and the amount and virulence of the infecting agent to a minimum. To sum up we are not awake to the importance of the situation, we cater too much to the whims of the patient and against our own judgment leave to nature more than she can perform.

For study we can make three divisions of the subject: Pregnancy—Delivery—After Delivery.

Pregnancy—Too much stress cannot be laid on the management of pregnancy. The patient should be watched from the very beginning—many of our patients are not seen until their confinement—although the physician was notified early that he would be wanted. The patient should certainly be seen every month during the first half and twice every month during the last half, outdoor exercise, pleasant occupations and regular baths insisted upon—bowels regulated—proper diet ordered—urine examined occasionally and if albumen is present carefully watched and persistently treated, for nothing is more conductive to a tedious convalescence, than kidney involvement—blood dyscrasias correctde—treatment as indicated for malaria—syphilis, etc. Nipples softened with oil and not hardened with alumn and whiskey—any local troubles should be carefully looked for and treated—such as ulceration and crosions of the cervix and especially retro-displacements of the uterus. It is not an uncommon practice to tell these patients that their backaches and pains in side, which are nothing more or less than threatened abortion, will all disappear after the third or fourth month, when the uterus will have grown out of the pelvis. These three or four months instead of being the best months of pregnancy for preparing the patient for confinement are spent almost entirely in the house—a great deal of the time in bed—the patient always suffering pain, sleepless and irritable. If abortion is escaped she will be in poor condition to recuperate during the remaining months. Too much emphasis cannot be laid upon the importance of correcting these displacements and holding the womb in normal position, either with pessaries or tampons until it has grown large enough to hold itself in place. All of us know how effective this treatment is and how simple and easy it is to follow, and it is strange how seldom we do it.

Delivery—Immediately after labor begins an opening enema of soap suds and turpentine is given, to be sure of a thorough evacuation of the bowels—a tub bath—hips, thighs and external genitalia scrubbed with green soap and water followed with normal salt solution. Clean bed linen, gown and stockings.

The hands and arms of the operator should be scrubbed with green soap and water, then plain water, for at least ten minutes, then immersed in any good antiseptic. The hands should be as clean as you would have them if you were going into the peritoneal cavity. The operator should wear a clean operating gown. Now there is no reason for not examining the patient just as often as is necessary, I have never seen any reason whatever, for advising that the examination of the patient be made as infrequently as possible, which is taught by most text books and medical schools, preventing the physician, especially the young practitioner—for fear of doing harm—from giving the patient all necessary help. For digital dilatation of the cervix and perineum

is a wonderful help; and if practiced during the pains will give no additional discomfort; hastens a slow labor and leaves the patient in a better condition. It has been my rule to keep my fingers on the child's head after it gets on the perineum until delivery is completed. If pains are not good, quinine in 10 or 15 grain doses rarely fails to help. Lacerations of the cervix and perineum of any moment should be immediately repaired. I make it a rule to wait until there are pains before delivering the placenta unless it is longer than a half hour—then use forcible expulsion—see that uterus is firmly contracted and give one drahm of F. E. Ergot. If the uterus has a tendency to relax and fill with clots even without any abnormal hemorrhage, I give 20 drop doses of Ergot every three or four hours for five or six doses—this lessens the after pains and materially aids in final involution. Patient is now given a hip bath of normal salt solution—a sterile cotton and gauze pad applied which is frequently changed and the parts washed with salt solution each time.

After Delivery—The patient should be seen once every day, preferably in the afternoon for at least 10 days. I call attention to this because I believe the usual practice is to see these cases only a few times and then indifferently—just when the physician happens to be in the neighborhood. The patient should be instructed not to lie on her back in one position, but to turn from side to side, and it is good practice to have upper part of body elevated a little more each day to assist drainage. The nurse should be instructed to note carefully the nature and quantity of the lochia and a pad saved each day for your inspection. The pulse and temperature should be carefully taken at each visit. If the temperature is above normal a thorough vaginal normal saline douche should be given—if temperature is not normal in 12 hours the cervix should be exposed and application made of equal parts tincture of iodine and carbolic acid, or a solution of nitrate of silver 60 grains to one ounce of water, and the vaginal douche continued every 12 hours. If this is not effective within 24 hours—the cavity of the uterus should be gently and carefully explored with a dull curette and any blood clots, pieces of membrane or placenta removed, followed by an intra-uterine douche of salt solution with a Chamberline tube.

This will cut short any of the common mild infections and I think will prevent the malignant forms of septicaemia. There should be no routine practice as to the length of time the patient should remain in bed, but certainly never less than two weeks. In every case before allowing her to get out of bed an examination of the uterus should be made. If it is too large she should stay in bed until it is of normal size. If it is enlarged and there is already a retro-displacement, it should be kept in position with boro-glyceride tampons, applied while in the knee-chest position, until it has assumed normal size and position, constitutional treatment, tonics, etc., should not be lost sight of.

I am sure that many of this association will say that I am making a mountain out of a mole hill; but when we stop to think of the importance to society of our obstetric work, and of the limited practical experience the average general practitioner or obstetric surgeon has, in making accurate diagnosis of pelvic troubles which follow labor, our duty will be plain, for it would be interesting and astonishing to know the number who have never seen a cervix immediately after delivery or after examination, can't tell if the womb is enlarged, retro-verted or retro-flexed.

In conclusion I will say that every physician, to do his whole duty to his patients and justice to himself, must abandon the let alone and leave to nature policy, which is now in vogue, which is simply to get the patient out of bed at the usual time, and should look forward a few months and treat them more carefully and prevent pelvic lesions which ought to be a reproach to our profession. To do this every labor should be treated as a surgical operation always bearing in mind the great dangers of infection and its consequences. Nor can we do this work with any degree of success or satisfaction, until we impress the laity with its importance and we perfect ourselves in making bi-manual examination of the female pelvic organs.

Description of a Curious Case of Malformation. Child Born with Heart Outside of its Body.*

By John Gates Goode, M. D., of Cheriton, Va.

Since the time of Hippocrates the anomalous and curious have been of exceptional and persistent fascination to man. The case I am about to report is certainly an exceptional anomaly from any I have read or heard of.

On the night of January 7th, 1904, I was called to attend Mrs. O. in labor. She was a white primipara, age 27 years. Her labor was perfectly normal; gave birth to a girl baby the next morning at 7 o'clock. Weight of child 5½ pounds.

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Upon examining the child I found that its heart was outside of its body. With the exception that the cord was attached higher up than usual the child was perfectly normal otherwise. *The heart protruded from the chest* throught a small opening just large enough to permit the vessels to enter the cavity, and corresponding in position with the second piece of the sternum (gladiolus). The integument at the lower part of this foramen was continuous with the covering of the blood vessels; not so above. The heart was perfectly normal in size and shape; the auricles, ventricles and auriclular appendices being very distinct and well defined.

The cord was attached about one inch below the heart, corresponding in position with the ensiform appendix.

The first piece of the sternum (manubrium) was intact; the other two (gladiolus and ensiform appendix) were either absent or divided in the centre and attached to the sternal extremities of the ribs on both sides of the heart.

The child did well for some days, but the walls of the heart gradually got thicker and thicker and the end of sixteen (16) days the child died.

From the birth of the child I had the heart anointed with olive oil about every three (3) hours, and kept it protected from all clothing, etc., with a pasteboard appliance, cone-shaped, placed over the organ.

The child was noruished with Horlick's Malted Milk, as the mother could not well feed it from the breast without mechanical injury to the heart.

The following doctors besides myself saw the child in life: Dr. G. W. Holland, Eastville, Va., Dr. G. P. Moore and Dr. B. Kellam, Cape Charles, Va.

The Rectum as a Controlable and Clean Bladder in Exstrophy and Malignant Disease.*

By J. W. Henson, M. D., Professor of Anatomy and Genito-Urinary Surgery, University College of Medicine, and Surgeon to Virginia Hospital, Richmond, Va.

Most perfected inventions are the result of the successive addition of improvements by a number of minds, not one of whom perhaps, would ever have thought of the original idea. Just so with many surgical operations which are successful in meeting indications. The pioneers, with much thought, care and courage, plant and nurse the seedling upon which is engrafted, later, various branches by a number of workers, the tree finally bearing desirable fruit.

Intending this paper to be short, I shall consume little time in discussing the merits of the question of total removal of the bladder for malignant disease. I am convinced there are cases in which such a procedure is indicated; for example, when there is a primary growth of decided proportions, particularly if it be on the base of the organ (where it usually is) and there is no secondary involvement of other organs and little or no glandular involvement. Partial extirpation of the bladder will not cover all such cases. Total extirpation has been done a dozen times with a mortality of 50 per cent., which is encouraging in view of the fact that the operation is in the experimental stage.

The mortality of every grave operation is much less after it has been done many times, partly because surgeons learn how to do the work quicker and better and partly because their judgement becomes educated in the matter of selecting cases. The subject for discussion in this paper, however, is the provision to be made for the urine in exstrophy and those cases of malignant disease in which removal of the bladder is indicated.

In either case the indications are to provide a new reservoir for urine with the following characteristics:

1. It should have a physical capacity of several ounces.

2. It should be tolerant of urine to the extent of several ounces.

3. It should be under involuntary control for retention and under voluntary control for retention and expulsion.

4. It should be clean.

Few of these indications had been met (and these very imperfectly) until Maydl and others by turning the stream of urine into the sigmoid flexure or the rectum met them all except the last. By this procedure the sufferers are made comfortable, having control over their urine, but they all die in a few months or years, at most, of pyelo-nephritis from ascending infection, even with Maydl's plan of implanting the whole trigone. To obviate this the rectum should be clean. I beg to suggest providing this 4th characteristic of the new bladder as follows:

A few weeks before operating on the old bladder or the ureters, do an inguinal colostomy, sever the bowel and close the upper end of the lower segment. As soon as union is firm, begin systematic irrigation of the rectum which will in a short time render it a clean sac ready for conversion into a bladder. I do not find it recorded anywhere

*Read before the Tri-State Medical Association of the Carolinas and Virginia, at Danville, Va., Feb. 24, 1904.

that exactly this plan has ever been suggested.

Modlinski (1 and 2) in 1899, reported a very similar plan, viz: That, at the time of the implantation of the ureters into the rectum, the gut should be severed, at or below the sigmoid flexure, the upper end of the lower segment closed and the lower end of the upper segment stitched in the abdominal wound. Besides the objection of soiling the fresh external wound with the fecal current, this plan does not offer a clean reservoir at once. There is a bare possibility of infection ascending to the kidneys before the rectum becomes clean and a greater possibility of infection of the wounds in which the ureters are implanted with failure of union. However, it is a step in the right direction, I believe, and I wish to urge investigation of the merits of the two plans with the acceptance of the better.

Let us review the situation. If a new bladder possesses the four characteristics pointed out above, it seems to me it must be conceded that it is a success. It must further be conceded that Maydl and others by turning the stream of urine into the lower bowel, have suggested a reservoir with all the characteristics but the fourth, for many patients (1 and 2) with exstrophy have been subjected to this treatment with the universal result that they are able to retain their urine, the average time being 4 to 5 hours, some even as long as 6 or 7 hours.

Now if the rectum is freed permanently from the fecal current and is made clean before the urine is diverted into it, we must grant that the desired new bladder is provided and the only question which remains to be discussed is whether the sufferer's condition is improved by substituting one evil for another. What is the condition of a patient with a fecal fistula after colostomy? He wears over the opening, a pad which is periodically removed to allow the bowel to empty itself, and except in cases of diarrhoea, he can be clean, is comfortable, and is not offensive. Contrast this picture with that of a subject of exstrophy. The inflamed and ulcerated bladder mucosa protrudes against the clothing or dressings; the clothing is constantly saturated with decomposing urine; the skin on the abdomen and thighs is chafed and excoriated, and there is an ever present foul odor, making the sufferer disgusting to himself and others. Would a patient or surgeon hesitate in deciding between these two?

In the case of malignant disease, death being certain in a few years without radical measures, if it be found that extirpation of the bladder gives a patient a fair chance of life, would one hesitate to select life with a new serviceable bladder though complicated by a fecal fistula of colostomy? If he refuses this, he must have a urinary fistula to make life bearable for the limited time or he must accept excision of part of the bladder or submit to complete extirpation, the stream of urine being thrown into the bowel with the fecal current. In the first case the urinary fistula will be found not less objectionable than the fecal one and the chance of prolonged life is lost. In the second case he takes the chance of recurrence which is the rule. In the third case, while the fistula will be avoided, life will be sacrificed by infection of the kidneys just as certainly and probably in just as short time as if the malignant growth were left to work its will.

A few suggestions regarding technique I hope may be pardoned. The colostomy should be done in the left inguinal region and in two stages of course, the steps of the last stage being to sever the bowel completely and close the upper end of the lower segment, without entering the abdominal cavity. Reference has been made to the systematic daily irrigation of the rectum, to be commenced when the union is firm at its closed upper end. The solutions for irrigation should be mildly antiseptic and their employment for a week or ten days should render the isolated cavity clean. When about to operate upon the bladder, the fecal fistula should be packed tightly with gauze and the abdominal incision should be made as far to the right of the median line as is possible without embarrassing inspection and manipulation in the field of operation.

References: 1. *"The International Medical Annual,"* 1901.

2. *"American Year-Book of Medicine and Surgery,"* Gould, 1901.

Milk Infection and Prophylaxis of Same.*

By Dr. G. W. Cocke, Danville, Va.

Dr. Sedgwick has well said, among all the vehicles as carriers of infectious diseases, there is perhaps none more dangerous than milk. We are sorry to say the day has passed when a pretty milk-maid went in her clean white apron, and with shining pail, to milk the cow with the "crumpled horn" out among the daisies and butter-cups on a dewy morn; but instead some old fellow stubles out of the house, with pipe in mouth, and with face and hands unwashed, to the barn he goes and find a recumbent cow resting in the filth and slime of an unclean stall, and

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kicks her up and seats himself on his lazy stool, without washing cows udder, or his hands, save with the milk—proceeds now to gather the milk, and whatever else may fall into the pail. Owing to the fact that we have here one of the most excellent Culture Medias to my knowledge, in which germs are either kept alive or in which they are constantly multiplying, it is not surprising that we often have epidemics of germ, and infectious diseases along the milk-man's track, or route in our cities.

Among the most common germs carried by milk, we have the typhoid and scarlet fever bacillus; the colon bacillus; various pus cocci; the tubercle bacillus; the diptheria bacillus, and various saphorophytric germs; which grow in the milk before and after it is ingested in the intestinal tract, and which often produces toxins, such as those causing the summer diarrhoeas of infants.

While no specific organism has been discovered as the cause of summer diarrhoeas in infants, yet the recent investigations of Duval and Bassett, point to the bacillus dysenterias as at least a very common cause. It was first isolated as you remember, by Shik in Japan in 1897, later by Flexner, in the Philippines, and afterwards by Kruse in Germany. In each of the cases it was associated with dysentery in adults; the studies of Bassett and Duval, now indicate that this same germ is also a common causative factor in the diarrhoea of infants. In spite of Koch's sweeping assertion that bovine tuberculosis is not communicable to man, the danger of the tubercle germ in milk supplies is adhered to by most bacteriologists. Trustworthy statistics as to the frequency of tuberculosis in cattle are difficult to obtain. In the State of New York it is estimated that 7 per cent. are tuberculosis; in Massachusetts the herds tested by request gave 25 per cent. tuberculosis; in Denmark from 30 to 40 per cent.; in Belgium 49 per cent.; in Great Britain 30 per cent.

Proof is not wanting that this disease is rapidly increasing among cattle, and as Dr. Salmon, of the United States Department of Agriculture, says, this fact alone should cause concern from a public health standpoint, irrespective of the question of direct communicability of tuberculosis from animals to man. We should also remember this fact, that tuberculosis effects dairy cattle much oftener than it does range cattle, and the finer breeds of cattle are especially prone to this much dreaded disease. Dr. Russell, of the Wisconsin Agricultural Experiment Station, has said close confinement often in illy ventilated stables, frequent breeding, and intensive feeding for milk production are causes that lower the resisting powers of the animals, and if exposed to contagion, disease is more likely to result than under more natural conditions, and the more frequent interchange of dairy breeds of cattle from one herd to another renders possibility of infection much greater with this class, than with cattle grown for the stock market.

It was at one time thought that the cow must present tuberculosis of the udder before the tubercle bacillus could be conveyed to those who drank the milk, but Herstberger, Ernst and others, have conclusively demonstrated that the tubercle bacilli may be present and the milk be infective, and sometimes in a large proportion of cases in which there is no tuberculous mamenitis.

So eminent authority as Dr. Osler, of Baltimore, has recently given us some very interesting data on this subject. A patient of his, a dairyman by profession, knowing that a large percentage of his valuable herd of fine bred cows had become tuberculous, by the Doctor's advice, withdrew the milk from the market, and the dairyman decided to fatten his pigs on same without boiling the milk; all of his swine, almost without exception, became tuberculous, and had to be slaughtered. If this be true, then there is sufficient proof to believe that young children and adults who feed on infected dairy milk are not less liable or susceptible to the virus than calves or pigs. Now then we can readily see the danger of the disease from this source is real and serious and the great frequency of intestinal and mesentric tuberculosis in children, no doubt finds here its explanation.

As noted in Woodhead's analysis of 127 cases of tuberculosis in children the mesenteric glands were involved in 100 of these cases. It now seems to be a well established fact that cows can not be infected with human tuberculosis, but the converse proposition cannot be asserted. The agency of milk in the spread of contagious diseases has only recently been appreciated. The number of cases where typhoid fever has been carried in milk supplies is very great, and too common an occurrence to admit of an extensive argument here. The typhoid germs reach the milk in a number of ways. The water used in washing pails, cans, bottles, etc., may be infected. The hands of the milker may be infected; flies may carry the germs from fecal matter. The evidence that insects, and especially flies, frequently carry disease germs, was demonstrated with especially convincing effect by Dr. Vaughn, during his investigation at various encampments, during the Spanish-American war. In the celebrated Stanford, Conn., typhoid

epidemic, 97 per cent. of the cases had been using milk from the same dealer; here investigation promptly demonstrated the cause of the epidemic, a shallow infected well on the premises of the milkman.

Kober in 1900 collected records of 330 outbreaks which were spread by milk. There were 195 of these outbreaks typhoid fever, 36 of diptheria and 99 of scarlet fever. Of the 195 outbreaks of typhoid fever, 148 of these were traced to the dairy. Of the 99 of scarlet fever, 68 were traced to the dairy. Of the 36 of diptheria, 13 were laid at the dairyman's door. Anthrax foot, and mouth diseases, cholera and lockjaw are occasionally transmitted through milk supplies. Milk frequently contains an enormous amount of filth, in the cases of careless dealers. Berlin in this way is said to consume about 300 pounds of manure daily. You have heard it said that every person must sooner or later consume his peck of dirt or filth; so you see if you lived in Berlin, you would soon get your peck. I expect some of us get ours without going to Berlin.

Now for the remedies; we have given you the evils, now for the good or prophylaxis.

The question of producing a clean, wholesome and pure milk supply is one which ought not to present any serious difficulties Only comparatively simple precautions are necessary on the part of the dairyman. The difficulty is that he will not usually observe such essential care, until he is forced to do so. For a long time bacteriologists have been studying the subject of milk supplies in their relations to public health, yet in spite of their efforts in this direction comparatively little progress has been made. Old habits cling fast, and innovations are accepted with reluctance on the part of the public. Either the public must demand a good milk supply or town and city authorities must act as the protectors of the public. Every practicing physician should familiarize himself with the main facts in regard to the production and handling of milk according to modern methods. Since no one can do more than the doctor to educate public opinion on this one subject, and thus improve the milk supply, and health of his community, for we are indeed, or should be the public benefactors. The cure for all such evils lies in the proper inspection of dairies, by one especially qualified and representing a board of health, or milk commission, and not by some incompetent political favorite, as is sometimes the case. Until town and city authorities can be depended upon to enforce such ordinances, medical societies should appoint a committee of inspection of dairies and offer to certify milk from such dairies, as are willing to conform to rules laid down by the society. Some important rules to be observed in cow's milk to be used as food for babies and young children:

1st. Freshness; it should not be over 24 hours old.

2nd. It should contain no preservatives, such as boric and solicylic acids and formaldehyde.

3rd. It should be from healthy animals.

4th. It should be clean.

5th. It should not be skimmed or otherwise falsified.

6th. Should contain no pathogenic organisms.

7th. The number of other organisms should not be excessive and here I will give you some rules for excluding pathogenic bacteria, and checking the spread of contagious diseases in dairy milk supplies:

1st. No person suffering from, or in contact with a person suffering from a contagious disease, should go into the dairy, or handle the milk or milk utensils, especially should this be enforced in epidemics of scarlet fever, typhoid fever and diptheria.

2nd. The hands of the milker should be thoroughly washed just before milking and the cow's udder should be well washed and dried. Cans, buckets, pails and bottles, should always be washed at the dairy in boiling water, and then aired and sunned.

3rd. In all epidemics of contagious diseases the milk supplies should be carefully watched and investigated.

The question of prophylaxis is of such universal interest that the admirable rules formulated by Dr. Vaughan are well worth remembering.

1st. The cows should be healthy and the milk of an animal which seems indisposed should not be mixed with that from the healthy cows.

2nd. Cows must not be fed upon swill, or the refuse from breweries or glucose factories, or upon any other fermented foods.

3rd. Milk cows must not be allowed to drink from stagnant pools, but must have access to fresh pure water.

4th. The pasture must be freed from noxious weeds, and the barn and yard kept clean.

5th. The milk must be at once thoroughly cooled by placing the milk can in a tank of cold or ice water, the water must be of the same depth as the milk in the can. The tanks should be thoroughly cleaned each day to prevent bad odors. The temperature should be reduced to 60 or 50 degrees Farenheit, and kept there until milk is delivered.

6th. Milk should be delivered during

warm weather in refrigerated cans, or bottles, packed in ice for transportation.

7th. When received by the consumer it must be kept in a clean place and at a temperature some degrees below 60 Farenheit.

If all the milk used in the artificial feeding of infants, could be obtained and marketed with the care demanded by the above rules, milk infection would be practically unknown, and the sterilization of the infants food would be unnecessary—a thing of the past.

February 10th, 1904.

Unique Cases.*

By J. W. Dillard, M. D., Lynchburg, Va.

I will ask your indulgence for only a short time, while I give you a synopsis of four unusual cases.

Two years ago Mrs. Mahone, of Virginia, was referred to me by Dr. C. B. Young, of Lynchburg. I found her suffering from ovarian disease, which upon operation proved to be a dermoid cyst of large size and very extensive adhesions. This patient was not in a good condition and bore the anesthetic badly. The operation in itself revealed nothing worthy of your special attention. After this was over and before the peritoneum was closed I asked my assistant and nurse, both of whom have had large experience, to carefully look and see if all sponges, pads and instruments were in place. They together counted these things, and replied that they had them all. The abdominal wound was accordingly closed and patient put to bed in a fairly good condition, save shock which was greater than usual in such cases. She did well for the first five days with no very irregular symptoms. After this time, however, her temperature rose to an hundred and one with a pulse an hundred and twenty. In this condition she practically continued for three weeks with no particular reason that I could detect to account for the rise of temperature and of rapid pulse. After this time the temperature fell to ninety-nine, pulse one hundred, patient comfortable, expressed herself as feeling that she would get well, and this improvement continued for ten days, at the end of which time she was taken in a carriage to her home a mile distant. She stood the trip without inconvenience. On the next day, however, she was worse, rapid pulse, temperature an hundred and two, nausea and diarrhea. This line of symptoms continued for two weeks until the patient was greatly worn and exhausted. Just at this time there was marked diarrhea, patient saying that she could not evacuate the bowels unless allowed to sit up. This was done, and in this position the bowels moved very copiously, patient felt relieved and was put to bed. An examination of the evacuated contents proved that a gauze sponge had been left in the abdominal cavity, and was the cause of this long and tedious recovery, notwithstanding every precaution that I had taken to avoid this unfortunate occurrence. Her recovery was complete and at this time she continues in good health.

How this globular, soft, foreign body could have made the remarkable feat of passing from the peritoneal cavity into the bowels, and back into the world as it did without more serious results, I will leave you to determine for yourselves.

I was called to see Mr. C. B. on Monday morning, September 14th, 1903, found him suffering with pain mostly at the umbilicus. The abdomen was swollen, the muscles rigid, great tenderness over the hole of this region, but not especially marked at McBurney's point. Temperature one hundred and one and three-fifths, pulse eighty, respiration normal, tongue negative, expression bad, had slept very little the night before. Patient commenced vomiting at 12 o'clock on the same day a greenish offensive fluid. This continued without an interval of an half an hour for thirty-six hours. The following morning, Tuesday, I was called to see him early; found him with temperature ninety-five and four-fifths degrees, pulse eighty-eight, breathing shallow and whole surface bathed in a cold perspiration. Patient continued in this state of collapse with temperature unchanged until 5 o'clock of the same day when temperature reached ninety-nine degrees, the pain in the abdomen and vomiting kept about the same except at this time the vomitus became stercoraceous and kept up this character until 10:30 o'clock Tuesday night. Wednesday morning patient was found much improved. Would not consent to operation during attack. Appendectomy was performed two weeks later revealing the following condition: Appendix unusually long and bent on itself at an acute angle with adhesions very extensive. The appendix was also found to have ruptured but the rupture had been caught against the illiacus internus muscle and became tightly adherent, thereby preventing any of the intestinal contents from escaping into the peritoneal cavity. Patient made a good recovery.

In this case, which was a very trying one, I had the counsel of my honored friend Dr. R. W. Martin.

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Mr. C. H. L., of Nelson County, Virginia, was referred to me by Dr. J. E. Vaughn, of my town. Patient 45 years old, of healthy people and with no specific history. Examination revealed an enormous hepatic abscess. Patient was sent to hospital for an operation on the following day. Early next morning I was called to see him and found the patient's abscess had ruptured through the diaphragm and into the right lung. No operation was performed and patient made a good recovery after expectorating enormous quantities of very offensive hepatic abscess pus for one month.

The only cause that could be ascertained for this abscess was an attack of acute appendicitis which occured about two months before the formation of the abscess; as the patient had never lived out of Virginia and had never had dysentery, fever, or any other disease likely to cause hepatic trouble.

Mrs. B., of an adjoining State, age 28 years, primipara of good form, and health, was taken in labor and delivered instrumentally 36 hours afterwards of a large still born child. The instrumental delivery must have been very difficult as the patient was under chloroform for that purpose a long time. The delivery was followed by puerperal septicemia and phlebitis of both lower limbs, but made a slow recovery and was brought to me to have her perineum and cervix repaired. To my surprise, I found, on examination, that this patient had absolutely no cervix, the whole neck having sloughed off, or in some other way caused to disappear, and the anterior wall of the womb had been lacerated for an inch and a half up behind the bladder.

The Diagnosis of Perforation in Typhoid Fever.

Hector Mackenzie (*The Practitioner*, January, 1904) discusses this important subject, and, among other things, says that abdominal pain is by far the most important of the early symptoms of perforation, and it may be the only one. The pain usually comes on suddenly, is probably severe and persistent, and is most commonly referred to the lower half of the abdomen. A complaint of abdominal pain should be considered a very important danger signal. Nausea, vomiting, hiccough, frequent stools, a chill, sweating, mental excitement, or the symptoms of collapse may precede, accompany or follow the pain. At the occurrence of any of these manifestations, the attendant should at once notify the attending physician.

Upon his examination of the patient, if perforation has taken place, certain confirmatory signs will probably be found.

1. There may be a change in the temperature, either a sudden drop or a sudden rise, or a drop followed by a rise, or a rise followed by a drop. A steady temperature, however, for a few hours does not negative perforation.

2. There may be a change in the pulse, which usually, soon after perforation, becomes more frequent and weaker It is highly significant, if the pulse, during the few hours following the attack of pain, becomes more rapid, running and feeble. Nevertheless, increased rapidity does not invariably follow within a few hours.

3. There may be a change in the facies. The development of a pinched or drawn look, depression of the angles of the mouth, sinking in of the eyes, blueness of the lips and sweating are important changes which may occur.

Still more important and significant are the local signs. Thus there may be found to be:

(*a*) Tenderness of the abdomen on palpation. This may be general, but is usually most marked over the lower half.

(*b*) Rigidity of resistance of the abdominal walls, with either retraction or distension of the abdomen. This is a very important sign. The presence of softness or flaccidity is always reassuring.

(*c*) Obliteration of liver dullness. This is a valuable sign if present; although not always free from ambiguity, it is highly confirmatory of the diagnosis of perforation of a hollow viscus.

(*d*) Shifting dullness in the flanks, pointing to the presence of free fluid in the peritoneal cavity.

(*e*) Diminished movement of the abdominal wall with respiration.

If it be found on examination that there is no tenderness, that the abdominal wall is flaccid and soft, and moves freely with respiration, that the liver dullness is normal in extent and that the flanks are resonant, then one may rest assured that as yet no perforation has occurred.

An increase in the number of white blood cells also points toward the occurrence of intestinal perforation.

The Treatment of Uterine Cancer by the Combined Use of Finsen Light and Roentgen Ray.

George C. Hopkins (*Brooklyn Medical Journal*) states that in this age of new remedies and specifics, the profession must hold itself somewhat in check, or it will be carried off its feet. For several years the author has given much study to this sub-

ject and he believes that by these therapeutic measures diseases that have been relegated to the incurable class have been brought into the list of curable maladies. Thus lupus, eczema, rodent ulcer and carcinoma of the uterus, of the nose, of the lip, tongue or breast can be cured.

The cases which the doctor treated were past the stage of operative interference.

That light rays (actinic) can reach the interior of the body is readily demonstrated by focusing the so-called arc lamp used in the treatment of tuberculosis of the lungs. This can be done by binding a photographic plate to the back of the patient and focusing the light upon the chest; sufficient light will pass through the patient to blacken the plate. That carcinoma of the uterus is purely a local disease at first is generally accepted.

He believes that he has devised a very satisfactory method for the cure of uterine carcinoma, especially when the disease originates in the cervix. This method is the combined use of the Finsen Light and the Rœntgen Rays, the principal dependence being in the Finsen Light.

He mentions the penetrating power of the X-ray, and states that great caution should be used in this region, especially after hysterectomy. One hour's exposure to the Finsen Light and five to six minutes exposure to the Xray is a good proportion. With the Finsen Light the external parts only need the protection of some fabric, but with the Xray metallic protection is necessary, and of all metals lead is the most satisfactory.

Retroversion of the Uterus: A Clinical Study of the Complications, Symptoms and Treatment.

Dunning (*Jour. A. M. A.*) states:

1. Simple uncomplicated retroversion of the uterus gives rise to but few symptoms, the chief of which are backache and bearing down pain. Painful menstruation occurred in 37 per cent. of the cases. Uncomplicated cases constitute but 7.01 per cent. (8 in 112) of the cases we have studied. Five uncomplicated cases were treated by the non-operative plan, three were cured and two greatly relieved.

2. The severity of the symptoms and the prospect of cure depends largely on the number and character of the complications. Prolapsed and chronically inflamed ovaries, endometritis and lacerations of the cervix uteri constitute the most common and serious complications.

3. The most complications are: Prolapsus of one or both ovaries, 42 per cent.; endometritis, 28 per cent.; laceration of the cervix, 24 per cent.; prolapsus of the uterus, 15 per cent.; adhesions, 13 per cent.; laceration of the perineum, 7 per cent.; movable kidney, 7 per cent.; ovaritis, without displacement, 8 per cent. of cases. The most common and almost universal symptom is pain, 74 per cent. This includes painful menstruation, 36 per cent.; backache, 35 per cent.; pain in inguinal regions extending down the limbs. In but 21 per cent. of cases did habitual constipation exist. Various degrees of invalidism existed in all complicated cases.

4. In the treatment of the simpler and less complicated cases, the non-operative treatment yields satisfactory results. Recent cases, especially those following labor, improve rapidly under this form of treatment.

5. Displacements of long duration, accompanied by the more serious complications, are not cured by this method, and the benefits resulting are scarcely sufficient to justify the effort.

6. Operative methods in the severest forms of displacement and complication are attended by a large per cent. of cures, and should be employed in preference to all other means. So large a percentage of these cases have multiple complications that two or more operations may be required in each case.

7. The danger attending the operative method of treatment is very small. In the twenty-one cases reported there was no mortality.

The Treatment of Pulmonary Œdema.

Isambard Owen (*British Medical Journal*, January 2, 1904) states that expectorant drugs are of little use. When there are signs of dilation of the right ventricle the venous circulation should be relieved by venesection. In very urgent cases, fifteen or twenty ounces of blood may be withdrawn, but ordinaarily about ten ounces will be sufficient. Failing venesection, we may have recourse to the application of leeches, to the front of the chest, or cupping, and to free watery purgation. Venesection should be followed by the exhibition of digitalis, strophanthus or convallaria to aid in restoring the tone of the heart wall. He believes alcohol useless, if not harmful; oxygen, of course, is indicated, and atropine and ammonia may be employed. Strychnine, however, he believes to be the most important drug of all. It should be given hypodermatically, and speedy improvement often follows its use, though how it acts it is difficult to explain. The fact remains that its effects are good both in light and severe cases, in cases with and without cadiac dilation.

Charlotte Medical Journal

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THE EVILS OF OPIUM IN THE TREATMENT OF PNEUMONIA.

Even in the hands of the most skillful, I believe that opium is an element of great danger in the treatment of pneumonia in all its conditions and stages. I believe that it is often responsible for fatal endings; that it interferes with important functions and clouds many important symptoms. Its most plausible use in the treatment of this disease is to relieve pain. It is a general belief that the seriousness of the disease is measured to a great extent by the pain produced.

Dr. Burt, of New York discusses this subject in a way which it seems to me should appeal to any intelligent physician. He says:

"It is well known to those versed in the properties of drugs, and should be to those who use drugs in the treatment of disease, that opium, except in doses that are infinitesimal, depresses and finally paralyzes the centers of respiration. What is more, this potent remedy for good and for evil also checks every secretion save that of the integument. In pneumonia the existence of the patient depends upon a maintenance of the integrity of the respiratory centers, together with the powers of elimination. When a sufferer from this vesicular exudation in the lungs is breathing forty instead of twenty times a minute, nature is compensating for the decreased area in which the inspired air can be used with each inhalation by increasing the frequency of the respiration. Moreover, the kidneys are the chief means of expelling the poisonous material collected in the system, and in this malady they are generally inactive. Consequently, a drug that adds to this inactivity and also tends to paralyze the centers of respiration is, in an infection like pneumonia, in my opinion, not only injurious, but extremely dangerous.

Opium and its preparations are generally recommended and commonly prescribed in pneumonia for the severe pleuritic pain with which it is sometimes accompanied. If this suffering cannot be alleviated by such simple expedients as the local application of an ice bag, or a hot poultice, or else by strapping the affected side of the chest, dry cupping will almost invariably prove efficacious. But this little operation must be done thoroughly. Although desirable, if possible, to relieve these pleuritic pains, the means of relief should never be at the expense of the patient's power of recuperation. Indeed, it would be infinitely better, if otherwise without remedy, for him to endure a moderate amount of discomfort or even suffering for a few hours than to imperil his chances for ultimate recovery by the benumbing of his respiratory centers and the checking of his secretions. Opiates are likewise sometimes given to lessen the cough, which though annoying is not specially harmful. In fact, the average cough of pneumonia with expectoration, for obvious reasons, should be rather promoted than suppressed. Finally, these drugs are now and then given in this disease to quiet restlessness, and nearly always, in my opinion, to the patient's detriment, for restlessness under these conditions is preferable to somnolence."

Here the doctor quotes from Dr. Gardiner, Professor of Medicine in the University of Glasgow, who is of the same opinion as Dr. Burt. These views differ a great deal from the way most of us were taught, and from the practice which has prevailed, certainly throughout the Southern country, for a long time. Everyone who has had a great deal of experience in the treatment of pneumonia must know, if they are ordinary observers, that opium is productive of unsatisfactory results and produces dangerous symptoms. This ought to be kept in the mind of every practitioner. I have repeatedly seen what can only be regarded as poisonous effects from very moderate doses of opium in pneumonia, especially towards the crisis. In this diesease, I have learned to dread more and more the effects of opium as my experience grows. In pneumonia, as Dr. Gardiner says, far more than in pleurisy, more even than in bronchitis, the safety of the patient depends upon the respiratory nerve centers being kept, as it were, wide awake. The excelerated breathing is an index always to the dangers present, and means by which nature compensates for the restricted area of lung within which the air can meet the circulating blood. If, when the respirations are 60 or even 50 or less in a minute, the respiratory nerve centers are sent to sleep by a potent narcotic, like that of opium, is it not obvious that the influence exerted at a critical time must be unfavorable. No other narcotic would be more harmful, and as a rule they are all resorted to less than opium. Opium tells more rapidly upon the respiratory nerve centers than any other drug. It stops the normal action of the reflexes, which are concerned in the function of the bronchial tubes. It stops

nature's method of drainage by stopping expectoration. In fact, all of the essential machinery, working in accordance with nature to keeep the patient alive is brought to a standstill when you give opium. The result is perfectly plain—we have noticed it repeatedly and repeatedly .

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Some time ago we referred to the methods pursued by our American Medical Association Journal. I hardly think that the principles involved warrant further consideration, and it is only a desire to make myself better understood that I notice it again. The *Journal* is the official organ of our National Society and the property of its members. This being the case, we have a right, and ought to concern ourselves about its management. The *Journal* is not the property of its editor and his associates—they are directed mainly in the matters we do not approve—consequently anyone at all familiar with the case must agree that we can express an opinion about the *Journal* without being personal so far as they are concerned, or exhibiting evidences of bad manners or jealousy. My former editorial was generally well received by the medical press. We certainly wanted to be equally fair to the *Journal* and to its editorial staff and to its directors and to the members of the Association. Those who criticised my views certainly did not interpret my feelings or ideas correctly. This I regret. For no one appreciates more than I the fact that we have a great National Association, and that its official organ is a great medical journal, intelligently edited and in many respects admirably managed. I am in sympathy with the most of its policies; am ready to applaud it for many of its great achievements. Through its influence and the intelligent work of the officers of the association, the medical profession is about to perfect an organization more complete than we have ever expected to see. I have no desire to depreciate the proficient work done by it along these lines of reform, or its efforts to improve our knowledge of scientific medicine. At the same time, we believe, as we have before intimated, that its commercial aspirations and operations have impaired, at least to some extent, its good influence in medical and surgical and sanitary measures. We believe further, that all the opportunities and facilities at its disposal have not at all times been wisely directed. I did think when I referred to the matter before, and I still have the same belief, that the *Journal* shows too many evidences that it wants to excel commercially. I am inclined to think that no good can come of it for me to enumerate these evidences here.

It is admitted, I believe, that the JOURNAL carries advertisements which are not as ethical as they might be. Their advertising rates, when circulation is considered, are a great deal less than any other medical journal of a similar character published in this country. Its relation to the Association enables it to do this without financial embarrasment. I am tempted to say further in this connection, that no other large medical weekly can afford to carry an advertisement for such prices. This does not affect us. If it did concern us personally it is doubtful whether we ever would have expressed an opinion as we have. This journal has lived and will continue to live for reasons that do not commercially interest large medical weeklies. They have plausible reasons for existence, so have we. A Southern Medical Journal published monthly with a comparatively local patronage is in no sense a competitor of the large medical weeklies published in the Northern cities. Any one who has the capacity to think at all and to judge justly will admit this. This is the relation that my journal occupies to the matter now being discussed. It was disappointing to observe that those who differed with my opinion undertook to modify the effects of my editorial by the argument that financial reasons inspired it. The conclusion would have been applicable if I had been the editor of a large New York medical weekly. In such a case our interests would be identical and the source of our revenue for support would be the same, then we would approach the medical profession and the proprietary medicine manufacturers for their patronage in the same way. We would have the same thing to sell and a feeling of commercial rivalry might exist. As it is, no fair minded man can believe that my writings on the subject are biased by such motives. I believe that it is common knowledge that the *Association Journal* has a commercial advantage over all other large medical weeklies. It might have been this knowledge that urged Dr. Culbertson to say, "It is causing murmurings," and it might have impelled a prominent medical gentleman to say that this was one of the causes of the death of the *Philadelphia Medical Journal.*

I believe that on the officials of the American Medical Association and the managers of the JOURNAL rests mainly the responsibility of organizing the medical profession of America and that any policy should be discouraged which will in any

sense impair this work which they have in hand. If this belief is admitted, the question would naturally arise—Do the methods which now prevail in regard to the management of the JOURNAL appeal generally to the medical press? If they do not, which I don't think they do, will the profession ever be as completely organized as it otherwise might be? To a great extent it would eliminate any difference of feeling or opinion if the *Association Journal* would conduct its affairs so as not to be a competitor of other journals. It can do this in many ways and not greatly effect its revenue. If it would put a proper valuation on its advertising space, a valuation that it even now merits, certainly one that it can easily attain, a great deal of good would be accomplished. Its subscription rate should be more than that of any other journal in this country. Its advertising rates when circulation and amount of space are considered ought to be 25 per cent. more than that of any other journal. Its ethical and scientific superiority ought easily entitle it to this price. When an advertisement appears in the *Association Journal* it ought to mean that it is ethical and scientific, it ought to mean that its merits have been established. The medical profession and even the medical press would like to have a high authority like the *Association Journal* to look for such information and the manufacturing pharmacist, we feel confident, want a similar source to appeal to for recognition. All of us will agree that the *Association Journal* should be the proper authority in all matters pertaining to ethical advertisements. Why should it not be conducted on such a basis? If it would maintain such principles its name would be respected among the medical journals as that of *Squibb* among the manufacturers of drugs. *Squibb* is hardly considered a competitor among drug manufacturers. He can get 25 per cent. more for his drugs than other people can. Why not the *Journal* of the American Medical Association imitate this policy? It has no occasion to use any methods that would not appeal to the most exacting member of the profession. As it is the ethics of an advertisement is established among the New York medical weeklies. If they accept an advertisement the JOURNAL accepts it also. Is this what we want? No. The reverse would be the most appropriate. The *Association Journal* ought to decide these things with more care and let other journals be governed by their decisions. It is natural that we would all look to the officers of the Association and the staff of the official organ to demonstrate practically the principles of ethics as they have been transmitted to us.

It may be proper to add that the belief is more or less prevalent that it is necessary for the medical profession to have a great medical publishing enterprise like that of the *Association Journal*—That it is of as much importance to the medical profession as it is to have heavily endowed and fully equipped universities for the teaching of all medical and surgical and sanitary subjects. They have the relative value and necessity of the two mixed. We need three times as many university conveniences as we now have and we have three times as many facilities for publishing the medical literature that is produced in this country as we need. The medical profession is not suffering for the want of more and larger medical journals. One-half of what we have can easily publish all of the writings and illustrations the medical world can produce. We need other things a great deal worse. A more thoroughly organized medical profession and better medical teaching institutions are more needed in this country now than large money-making medical journals.

DEATH OF DR. DeSCHWEINITZ.

Dr. Emile A. De Schweinitz, chief of the Biochemic division of the Bureau of Animal Industry of the Agricultural Department and dean of the Medical Department of Columbia University, died at his home in Washington, D. C., February 15th 1904. He was thirty-eight years of age, and a native of North Carolina. He was born in Salem, N. C., and was educated in the Nazareth Hall, Pa., High School and the Moravian College, of Bethlehem, Pa., and graduated from the University of North Carolina in 1882. While there, he manifested many evidences that he would develop rapidly into a useful and popular man. The degree of Doctor of Philosophy at Gottingen, Germany, and Doctor of Medicine at the Columbia University, in 1894, were conferred upon him. He was the delegate from this country to the Fourth International Congress of Tuberculosis, at Paris, in 1898, and a year later at Berlin. He received the same appointment to the International Medical Congress and Congress of Hygiene, at Paris, in 1900. He held many important positions. He was a member of the International Applied Chemical and Biological Society, the German Chemical Society, the French Society of Pure Chemistry and many others. Although comparatively a young man he had won an enviable reputation as a bacteriologist. He was a bright scholar, an investigator of much originality, and a prolific writer on bacteriology, hygiene and orrhotherapy. Tuberculosis

was his favorite subject. His style of writing was always easy, attractive and entertaining.

WORK IMMEDIATELY AFTER MEALS.

It is a correct belief that a man is not mentally and physically as strong immediately after taking a hearty meal as he is at other times. Work, especially, mental work, is accomplished with much more difficulty than it is under ordinary circumstances. Few men are strong enough to resume mental work, such as writing or transacting important business immediately after eating. This is a condition that physicians of experience have observed repeatedly and repeatedly, and is a condition which we all ought to bear in mind, when we want to benefit a class of patients where the assimilation of a large quantity of food is a necessity. It has been a rule with the writer for many years to advise this class of patients to rest at least an hour and a half after their mid-day and evening meals. The people in the Southern and Central States are not as wise in this respect as our neighbors are further north. It is a custom hardly without an exception, that people in the South go to work immediately after their mid-day and heaviest meal, and the majority of them have a feeling of laziness and a marked inability to enforce their minds to act vigorously and clearly. Our Northern friends act differently, and certainly more wisely. Their noon-day meal is very light, just a little lunch, and in the evening they eat their heavy meal, and devote their time immediately afterwards to rest or recreation.

Besides these things which affect our happiness and prosperity, a more serious danger is often observed. It is not uncommon that apoplexy is brought about when it would otherwise be avoided in men at middle age and past who eat a heavy meal and then exert themselves mentally. He may believe himself and his medical associates may believe that he is a healthy man, and yet he may have a weakness about the blood vessels of the brain which will not stand the strain under such conditions. From an economic standpoint it is wise not to tax the system immediately after eating. Physical endurance is much greater when the above suggestions are observed. For the energetic who hate to lose time, it is always well enough to advise them to save their newspaper reading or other light reading for this hour. I find that it hurts very few people, physically, to read newspapers and novels after meals, if they will do so without taking notes.

WOMEN PHYSICIANS IN INDIA.

It is generally admitted that the medical profession in America is gradually becoming more and more crowded, and a young physician, no matter how bright he may be, or what extensive preparation or experience he may have had, often finds it very difficult, or impossible, to enter the practice of medicine in this country, especially in the large cities where the practice is the most desirable. Uncrowded fields, under such circumstances, naturally attract the attention of a great many of the younger set of practitioners, especially women.

There is a peculiar custom prevalent in India, which pertains mainly to women physicians. Mohammedan hospitals there will admit in their male departments physicians of any nationality, but in their female departments a male physician is not allowed to go within several hundred yards of their wards. This inflexible rule applies also to physicians in ordinary practice outside of the hospitals. The unfortunate women there, we understand, seldom receive proper medical care. Women physicians in that country, especially among the Mohammedans, are very few. Those who are there are usually very busy and their services are very much appreciated. For women physicians, no better field is available than India, and especially in the well-to-do Mohammedan districts. They have to some extent recognized this and statistics show that a number of women physicians in a great many localities in India are gradually increasing and filling this demand for their services.

VAGGINATION OF PUBLIC SCHOOL CHILDREN.

The Supreme Court of New York has handed down the decision upholding the costitutionality of the statute enforcing the vaccination of public school children. The decision was given in the case of Viemeister, who sought to compel the Board of Education and the principal of the public schools to admit his child to school, admission having been denied because the child had not been vaccinated. The plaintiff urged that the staute was void; that it was contrary to the provisions of the Constitution of the United States. In an interesting opinion by Justice Woodward a decision is made that such a law does not violate the Constitution, as it operates equally upon every person who desires to become a pupil of the public schools, and affords equal protection to all. A part of his decision reads as follows:

"However willing we might be to agree

with the appellant that the practice of vaccination is attended with dangers, and that its efficacy is a matter of uncertainty, these are matters which should be properly addressed to the legislative department, rather than to the courts."

Judge Hirschberg also wrote an opinion, declaring that it constituted a legitimate exercise of the police power of the State.

Book Notices.

Diseases of the Eye. By Dr. L. Webster Fox, of Philadelphia. Just published by D. Appleton & Co., of New York. Price in cloth, $4.00.

This work is based on an extended experience and is a digested summary of the known facts in ophthalmology, which should be of use to the student and to the pratitioner, who is so often called upon for advice in ophthalmic cases.

Among the articles of special importance, we think that particular attention is due to those upon albuminuric retinitis, hemorrhagic retinits, lid operations, declinations of the retinal meridians, cataract, glaucoma and diseases of the orbit.

The subconjunctival injection of salt solutions in iritis and corneal ulcers, peridectomy in pannus, grattage in trachoma, and the use of opaque slips combined with correcting lenses for conical cornea are also given the prominence to which they are entitled, in the subject of treatment.

Compend of Pathology, General and Special, a student's Manual in one volume. By Alfred Edward Thayer, M. D., Professor of Pathology, University of Texas. Second Edition. P. Blakiston's Son & Co., Philadelphia.

In his preface Dr. Thayer says that the two compends of pathology issued by him in 1902 are here presented in a second edition as one volume. A special chapter on the nervous system has been added and the text thoroughly revised. He has presented the subject clearly and with sufficient completeness for the student's needs, and as before controversial matter and reference to authorities have been left out. The book as it now is will be very useful to physicians as well as students.

Progressive Medicine, Vol. I., March, 1904. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 337 pages, 7 illustrations. Per annum in four cloth bound volumes, $9.00: in paper binding, $6.00; carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

The adaptability which has enabled American genius to profit by painstaking work of the Old World, to grasp its import and then Improve upon it, is nowhere more strikingly exemplified than in the present series of quarterly digests.

In medical matters particularly, we have received many good things from Europe, and have always managed, in making them our own, to add features of characteristic ingenuity and practicability, and thanks to the zealous efforts of the distinguished editor and a most efficient corps of collaborators, we can now boast of posessing in *"Progressive Medicine,"* a conspectus of medical progress, which equals the great German *"Jahrbucher"* in scholarliness of treatment and in accuracy of the material, while it excels them in convenience of reference and in the extremely serviceable manner of presentation.

No worker in medical or allied fields, whether he be specialist or general practitioner, whether his province be pure science, or applied surgery or medicine, can fail to find this series of the greatest service. The man of note who is preparing a paper will find here the modern references with digests of the articles he requires to make his bibliography complete, and the plain, every-day doctor puzzled by an obstinate case can instantly refer to the methods of diagnosis and treatment employed to-day by the most eminent specialists of the world.

It cannot be too much emphasized that this is not a mere collection of miscellaneous abstracts and translations gathered at random, but is a strictly original work in which men of international reputation have written in monograph form, the advances that are being made in their respective departments, giving references to the original articles with careful digests, and in the light of their own experience and judgment selecting the wheat from the chaff, correlating results from different quarters of the globe, adjusting apparently contradictory observations, and everywhere indicating how and why and where progress has been made. The scope of the present volume includes extensive essays on such important and essentially progressive subjects as cerebral pressure, heart surgery, the treatment of tic douloureux, exophthalmic goitre, the transmission of diseases by insects, the theories as to the etiology of rheumatism, tetanus, paratyphoid, modern views on the nature of hay fever, etc., in which the

latest work of foreign and domestic observers is fully discussed.

The change of form to that adopted by Continental publications puts it on a par with them in point of price, since the cost of cloth binding is omitted, while the paper cover is sufficiently stout to withstand all ordinary wear and tear, and makes the volume much more easy to carry and handle. In addition it permits the great advantage of binding in conformity with one's personal taste and uniformly with other books.

Considered from every point of view, that of authoritativeness, completeness, adaptation to practical needs, agreeable style, availability for reference, convenient form, satisfactory press work, telling illustrations, and marvelously low price, the work is one that the medical profession may well be proud and grateful to possess.

The Management of Lateral Curvature of the Spine, Stooping, and the Development of the Chest in Phthisis. By E. Noble Smith, F. R. C. S. Edin., &c. Senior Surgeon to the City Orthopædic Hospital, London. Smith, Elder & Co., Waterloo Place. 1904. London. All rights reserved.

Dr. Smith has described in a clear, simple manner the practical points connected with the management of lateral and posterior curvature of the spine. This little book has a chapter describing the method for the development of the chest in phthisis. He discusses in a very scientific way the lateral and posterior curvature and has dwelt especially upon the benefit of exercise as an aid to mechanical appliances in the alleviation of these conditions. He has in a way modified the prejudice against spinal apparatus for these deformities, and has clearly shown that it is possible to have a splint which is far from objectionable qualities and is effective in most cases. The book contains 150 pages, profusely illustrated, and bound in cloth.

Diseases of the Nervous System. A Text-Book for Students and Practitioners of Medicine. By H. Oppenheim, M. D., Professor at the University of Berlin. Translated and edited by Edward E. Mayer, A. M., M. D., Pittsburg, Pa. Second American Edition, revised and enlarged. Philadelphia and London: J. B. Lippincott Co. 1904. Price, $5.00 net.

In the preparation of this, the second American edition, the opportunity has been utilized to revise the work completely and to incorporate the advances made in neurology during the last few years. The new matter introduced by Prof. Oppenheim in his third German edition has been translated and inserted, and, in addition, the translator and editor has added the results of research and investigation in this field since the revision of the German original. He has used the prerogative of an editor to give proper recognition to the work of English and American neurologists. Attention should be directed to the fact that Prof. Oppenheim has incorporated in this book observations which he has never published elsewhere, and that this work is, therefore, not only a judicious review of neurology, but also an original source of information. The new edition represents an increase in size of 54 pages, and the addition of a considerable number of illustrations over the first edition.

Judging from the favorable recognition given this book when published in its first editions, this edition with its additions and improvements will meet the success it deserves.

A Manual of General Pathology. For Students. By Sidney Martin, M. D., F. R. S., F. R. C. P. 8vo., pp. 502. With numerous wood cuts from micro-photographs, and other illustrations, including many in colors. P. Blackiston's Son & Co. Philadelphia. 1904. Price, $4.00 net.

The basis of this text-book has been the lectures on general pathology, delivered by the author at the University College at London during the past five or six years. He gives in a short space, a clear account of the processes of disease which it is necessary for the student to apprehend in order to be thorough in the study of scientific medicine. The author recognizes the fact that the study of general pathology must be hand in hand with that of medicine and practical work in morbid histology and anatomy and to some extent bacteriology. These subjects in this book are only dealt with as far as they have an evidently direct bearing upon the processes of disease. Many illustrations of some of the minute changes occurring in disease processes have been included in this book in order to remind the student of the structural changes occurring in the disordered function. The author, however, does not intend these illustrations and descriptions to take the place of a systematic study of morbid histology. He has not thrown away a great deal of space in referring to the literature on the subject. He has purposely omitted this. The book is in every respect a conscientious and scientific production of the literature on the subjects with which it deals.

Atlas and Epitome of Operative Gynecology. By Dr. O. Schaffer, of Heidleberg. Edited, with additions, by J. Clarence Webster, M. D. (Edin.), F. R. C. P. E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. With 42 lithographic plates in colors, many text cuts, a number in colors, and 138 pages of text. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, $3.00 net.

This new edition to Saunders' admirable series of Hand-Atlases is excellent. It is unfortunate that medical students graduating each year know less about gynecologic operations than about almost any other department of operative surgery. This atlas, therefore, is opportune, and the excellence of the lithographic plates and the many other illustrations render it of the greatest value in obtaining a sound and practical knowledge of operative gynecology. Indeed, the artist, the author, and the lithographer have evidently expended much patient endeavor in the preparation of the water-colors and drawings. They are based on hundreds of photographs taken from nature and reproduce faithfully and instructively the various situations which they intend to illustrate. The text closely follows the illustrations, and we have found it fully as accurate. We consider it of great value to the up-to-date practitioner and surgeon, as well as to the specialist.

Obstetrics for Nurses. By Joseph B. De Lee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago; Lecturer in the Nurses' Training Schools of Mercy, Wesley, Provident, Cook County, and Chicago Lying-in Hospitals. 12 mo, of 460 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1904. Cloth, $2.50 net.

Although this work was written, as the author states, primarily for nurses, yet from our interesting examination of it, we firmly believe that medical students will find it much of value, since the duties of a nurse often devolve upon him in the early years of his obstetric practice. There are really two subjects considered—obstetrics for nurses and the actual obstetric nursing—and Dr. De Lee has combined them, so that the relations of one to the other are naturally and mutually helpful, presenting this important branch of medicine in a clear and interesting form. The illustrations have not been borrowed from other works, as is too frequently the case, but have been made expressly for this book. The photographs were taken by the author from actual scenes, and are true to life in every respect. The text is the outgrowth of eight years' experience of lecturnig to the nurses of five different training schools.

Abstracts of the Leading Articles of the Month.

Puerperal Sepsis.

Horrocks (*British Medical Journal*, February 13, 1904) divides puerperal sepsis as follows:

1. Puerperal fever or septicæmia of the worst, and generally fatal, type.

2. Puerperal sapræmia—usually accompanied by an offensive discharge, recovery taking place.

3. Pelvic cellulitis—usually not fatal.

4. Pelvic peritonitis—usually recovered from.

5. Puerperal pyæmia; often a late stage of the preceding. Fatality depends upon virulence of sepsis.

6. Phlegmasia dolens.

7. Milk fever. Inflammatory and transcient, probably septic. Not fatal.

Of the above the only important forms are puerperal sapræmia and puerperal septicæmia; the latter is often, the former seldom, fatal. When they occur together, the case is still worse. Puerperal fever is contagious, but not infectious. Among its causes are erysipelas, purulent discharges, the handling of dead bodies, gonorrhœa, etc. Scarlatina and measles never cause puerperal sepsis. The streptococcus is the most usual originator of the septic process.

One of the very best methods of treating a woman in labor, in order to prevent puerperal fever, is to let her alone. The parturient canal is without pathogenic germs, so long as no digital or instrumental examinations are made. The high mortality from puerperal sepsis is due to too much interference with labor, too much douching, examination, etc. He is opposed to routine douching, and states that examinations should be avoided as far as possible; when they must be made, the same precaution should be observed as when the finger is put into the peritoneal cavity during an abdominal section. After describing methods of disinfecting the hands and of making the examination, the author goes on to state that he never uses a binder—a clean diaper may be applied to the vulva. Any vulvitis, vaginitis or urethritis should be cured before labor begins; if present during labor, then copious syringing should be praticed before the child is born. Syringing after labor is dangerous; swabbing out the va-

gilna through a Sims speculum is more efficient and less dangerous. In cases of sapræmia, an anæthetic should be given and the interior of the uterus digitally explored, to remove any retained secundines If the milk and lochia are scanty and suppressed, and the temperature is high, the case is probably one of septicæmia. Here, curetting is indicated. In some cases antistreptococcus serum seems to act wonderfully well. Sixty c. c. should be given in the first 24 hours, and 20 c. c. twice a day thereafter. Any wounds of the paturient canal should be repaired, and the surface dusted with some antiseptic powder. A doctor who gets a case of puerperal septicæmia, should not continue his midwifery practice, unless he gives up the septic case.

Vaginal Cystotomy for Stone in the Bladder

D. C. R. Robins (*American Gynecology*, December, 1903) has operated upon two cases by vaginal cystotomy. He believes it is the best operation for stone in the bladder in women, where the stone is too large to admit of extraction after moderate dilation of the urethra. Lithotrity is often a difficult operation, and in the first of his cases would have been impractical, owing to the fact that the cavity of the bladder was filled with stones and debris, and where no fluid could have been retained. Where lithtrity is employed there is not that drainage which is so essential for the treatment of accompanying cyctitis. Dilitation of the urethra is readily performed and stones extracted if they are not too large. If it is carried beyond a certain point there is liable to be a rupture of the sphincter muscle, with the establishment of permanent incontinence. Suprapubic cystotomy is followed by prolonged and disagreeable convalescence. The bladder is not drained in its most dependent point, and is not readily irrigated.

Vaginal cystotomy is the ideal operation in most cases. It is easily and quickly executed, and if necessary can be done under cocaine anesthesia. It gives the best drainage if cystitis is present. The formation of a permanent fistula is unnecessary, as dilating the opening daily when the bladder is irrigated accomplishes the same result. Union of the wound is prompt and occurs without suture. By using a large number of vulval pads and frequent bathing, the patient can be kept in a comfortable condition as long as drainage is necessary. The only objection that can be urged against the operation is the danger of forming a vesicovaginal fistula. If the mucus membrane of the bladder and the vagina are not united by suture and the incision is daily opened, there will seldom be this complication. In his second case union was noticed in four days after the opening had been dilated for five weeks. If a fistula does occur its repair is easy, as there is only a linear incision to deal with and there is no destruction of tissue.

The Gradual Restriction Method of Cure in Morphine, Cocain and Other Drug Addictions.

Dr. S. O. Goldan (*Therapeutic Gazette*, February 15, 1904) says that the gradual restriction plan of treatment consists simply in an attention to details. The treatment is varied as progress is made, and in order to apply the method intelligently a thorough knowledge of the habits of the patient is necessary. There are three principal conditions to be considered, each of which is the result of the one preceding:

1. The gradual elimination of the drug by replacing it with others, until both are entirely discontinued.

2. The treatment of toxemia by remedies which have peculiar properties as eliminatives of toxic, effete elements; also the use of stimulants of the emunctories, and the employment of gastric lavage.

3. The treatment of the neurasthenia, which is a condition that exists to a greater or less extent in all habitual drug takers.

Hyoscin hydrobromid is a true specific in drug addictions. It should be administered in small doses, as the other drug is withdrawn, as rapidly as circumstances will permit, giving a slightly larger quantity at night. Hyoscin is analgesic and hypnotic, and only slightly narcotic. It replaces morphin and cocain, with little, if any, of the deletorious properties of these drugs. As it is an extremely powerful drug, it is rarely necessary to give more than 1-100 of a grain, though the beginning doses should be smaller. Hyoscin has been denounced as too powerful a drug to use, but all patients are not alike, and if a practitioner cannot use hyoscin intelligently, then he is unfit to use any other drug.

He also applies remedies to stimulate the intestinal and renal functions, giving in addition much water to flush the kidneys. Gastric lavage is employed for the first week or so, for it is well known that morphin in particular is eliminated by the gastric mucous membrane, and reabsorbed unless preventive measures are resorted to.

Many remedies may be employed for the relief of neurasthenia, of which the chief are tonics, depending upon the individual preference of the practitioner. A valuable remedy for this condition is the glycerophosphates, administered preferably hypoderm-

ically, or if desired by the mouth. Glyecrophosphates are particularly useful also for the general weakness and muscular pains which these patients complain of when undergoing treatment. For this last condition the various coal-tar preparations or any other non-narcotic drug may also be exhibited.

Rupture of the Uterus During Labor.

T. B. Grimsdale (*Brit. Jour. Obstet.*, December, 1903) finds that its frequency varies, according to various authors, from 1 to 482 cases to 1 to 6,000. The mortality is also very high, varying between 55 and 95 per cent., according to the estimates of authorities. The lowest mortality is obtained where prompt abdominal operation can be performed. A patient who came under the writer's observation had four children, and her fifth confinement started on June 14, 1903, at 2 p. m., when the "waters" burst. At 9:30 the following evening labor pains began, and continued until a hand (the left) presented. Version was done, but as the os was rigid there was some delay. The child was dead and putrid. When the operator tried to get the foot down through the os, it was recognized that something was wrong, for at the posterior portion of the os another opening could be felt, and through this there came what the accoucheur considered a loup of the intestines. The delivery was completed and after the vagina had been packed with gauze, the patient was removed to the Royal Infirmary, where she arrived at 3 o'clock the next morning. The abdomen was opened as soon as possible, and there escaped from this cavity clear fluid and blood clots. The uterus was found to be ruptured in the posterior portion of the lower uterine segment. Panhysterectomy was performed. The patient was much collapsed after the operation. On June 28, one week after the operation, the patient acquired pleurisy, which cleared up in four days, and on July 21 she was discharged as cured. He believes that the safest treatment in the long run will be found in the boldest measures; also, that it is safest in these cases to remove the entire uterus.

Diagnostic Significance of Certain Reflexes and Tendon Phenomena

H. Oppenheim (*Med. Rec.*, January 2, 1904) makes the statement that he has never seen more than three or four instances of complete loss of knee-jerk when some organic disease of the nervous system was not present. These very few exceptions would seem to prove the rule. Mechanical conditions may sometimes render the demonstration of this reflex difficult or impossible. Obesity and joint deformities must, of course, be taken into consideration. He also mentions the importance of the heel phenomenon, or planter flexion of the foot upon sticking the tendo Achilles. This has not been held to be of much value on account of its supposed inconstancy in healthy individuals, but he believes if the examination is made with the patient in a kneeling position the reflex can be regularly elicited. The abscence of this phenomenon may depend upon neuralgias, sciatica, deformities, alcoholism, and diabetes, and even in apparently healthy people, it is sometimes absent, but on the other hand, it is of great importance, and in tabes may disappear before the knee phenomenon. The significance of Babinski's reflex has also been thoroughly investigated, and for a time was thought to mean an increased tonicity, such as exists in a spastic paraplegia, the pyramidal tracts being involved. It has been found, however, that it does exist in many cases in which there is also an involvement of the posterior columns of the cords and areas of the nervous system which exerts an influence antagonistic to the symptoms from pyramidal tract diseases alone. This phenomenon may then be the only remaining sign of pyramidal lesion. When this tract is involved in the brain, as in hemiplegia, Babinski's sign is, as a rule, present, but lesions of certain other tracts and centers at the same time may prevent its appearance. In the first year of life the sign is also present, because the pyramidal tracts are yet undeveloped. In certain cases of epilepsy the sign has also been demonstrated, so that we must not conclude that its pressure always means an organic lesion of the pyramidal tracts.

He also alludes to a reflex which he first observed, and which is similar to Babinski's in importance, but which may sometimes be demonstrated when the latter is absent. If, in a normal person, on stroking the inner side of the leg from above downward, with the thumb or by pinching a fold of the skin on the inner side of the leg, either no reflex movement will follow or the plantar flexion of the toes will follow. In affections of the pyramidal tracts a dorsal flexion of the toes and foot is observed. In this reflex not only the extensor longus hallucis but also the tibialis anticus and sometimes the extensor communis digitorum contract.

Potassium Iodid Idiosyncrasy.

Gathmann in the *Med. Record* for January 30, 1904, reports the case of a male, aged 51 years, who showed cyanosis of fingers after three days' use of potassium

iodid, receiving during this period about one hundred grains. The iodid was discontinued for two days and the cyanosis disappeared. On the sixth day from the beginning of the iodid administration a dose of fourteen grains was given at bedtime. The next morning a diffuse ecchymosis under the entire skin of the fingers and thumbs, extending to the metacarpophalangeal joints. The fingers looked as if they had been dipped into a pail of indigo. Above the joints mentioned were a few dark red specks. The fingers were numb, cold, stiff and swollen. The tip of the nose was similarly affected. Aside from a few spots on thighs and legs the lower extremities were not affected. Application of heat and friction, with discontinuation of the potassium iodid, to the fingers caused a return to the normal. There were blisters formed on nearly all the middle phalanges.

The Etiology of Sleeping Sickness.

Colonel Bruce, in the *British Medical Journal,* makes the following statement in regard to this affection:

1. That sleeping sickness is caused by the entrance into the blood and cerebrospinal fluid of a species of trypanosome.

2. That this species is probably that discovered by Forde and described by Dutton from the West Coast of Africa, and called by him trypanosoma gambiense.

3. That the so-called cases of trypanosoma fever described from the West Coast may be, and probably are, cases of sleeping sickness in the earliest stages.

4. That monkeys are susceptible to sleeping sickness, and show the same symptoms and run the same course, whether the trypanosomes injected are derived from cases of so-called trypanosoma fever, or from the cerebrospinal fluid of cases of sleeping sickness.

5. That dogs and rats are partially susceptible, but that guinea-pigs, donkeys, oxen, goats and sheep, up to the present, have shown themselves absolutely refractory.

6. That the trypanosomes are transmitted from the sick to the healthy by a species of tsetse fly, glossina palpalis, and by it alone.

7. That the distribution of sleeping sickness and glossina palpalis correspond.

8. That sleeping sickness is, in short, a human tsetse-fly disease.

Characteristics of Ocular Headache.

Wood, according to the *Eclectic Medical Journal,* has come to the following conclusions as to the results of eye-strain induced by civilization:

1. Forty per cent. of all chronic headaches and eighty per cent. of all frontal headaches are partially or wholly of ocular origin.

2. Their site, in order of frequency, is (*a*) supraorbital, (*b*) deep orbital, (*c*) fronto-occipital, (*d*) temporal, or (*e*) a combination of these.

3. Near work is their chief exciting cause; reading ,writing, drawing, painting, fancy work, type setting, typewriting, sewing, music, and the like.

4. Patients suffering from headaches often observe that other eye diseases (6 and 8) also result from the use of their eyes for near work, especially with artificial illumination.

5. Shopping, theatre and church-going, as well as riding in street cars and railway trains, often induce it.

6. The letters and lines in reading and notes in music blur, run together and get "mixed up."

7. The patient with ocular headaches is generally astigmatic or far-sighted, or has some other refractive error, or has some weakness of the ocular muscles.

8. Patients with ocular headache often complain of lachrymation, photophobia, foreign body sensations, specs floating before the eyes, itching and buring of lids, redness of eyes, etc.

9. The signs of eye-strain above mentioned may be present and the headache of ocular origin, although the vision is normal and there is no manifest astigmatism, or both, by continuous muscular effort.

10. About ten per cent. of all ocular headaches are incurable, and some of these are hereditary.

Appendicitis.

Spanton, in the *Brintish Medical Journal,* February 6, 1904, states that pain may be mistakenly relied on as an essential symptom of the condition, whereas in several of his cases it was very slight. The locality of the pain is often misleading; in the worst cases, it may be referred to the epigastrium or along the course of the colon. Epigastric pain is almost invariably associated with peritonitis, and is one of the valuable indications of its presence and the need for operation in these cases. Tenderness on pressure is entirely distinct from referred pain, and is usually over the seat of the appendix. In women it is apt to be confused with ovarian tenderness—it is not uncommon for both ovary and appendix to be inflamed. The presence of a lump is often misleading, for such cases often recover without operation, while its absence indicates little, as the appendix may be gan-

grenous or hidden away down in the pelvis. Abdominal tension, especially with rigidity of the right abdominal muscles, almost always denotes the formation of pus or circumscribed peritonitis. In conjunction with constitutional symptoms, it is almost pathognomonic. Constipation is usual, but spurious dirrhœa is not uncommon. Temperature and pulse count for but little, except when a sudden rise gives indication of grave mischief.

It is far safer to operate too soon than to wait a minute too long. No one ought to be allowed to die unopened, unless actually moribund.

Tubercular Diseases of the Female Urinary Tract.

Edward J. Ill, in *Anns. of Surg.*, states that it originates most frequently in the pelvis of the kidney or in the kidney itself. The resistance of the bladder to the tubercle bacillus seems great, and the bladder will readily throw off the disease as soon as the irrigated focus has been removed, even the ureter will apparently recover. The disease seems to spread by contiguity, rather than through the blood. The early and most frequent subjective symptoms are pain referred to the loin or iliac region of the diseased side, and later to the bladder. The pain may be felt along the course of the ureter Pain at urination always means infection of the bladder. The infection is most often at the trigonum and the meatus of the ureters. In old cases, difficulty to retain urine, after the desire to pass it once comes on, means an infection of the neck of the bladder. Every case of pyuria should be examined for tubercular bacilli when the cause cannot readily be ascribed to some other infection. The sensitiveness of the bladder to the touch per vaginam is an important symptom in vaginal tuberculosis. As we pass the finger up the anterior wall of the vagina to the cervix and then direct it, with its palmer surface forward, to one and then to the other side, we may find a thickened ureter. The normal ureters can nearly always be felt as very thin cords converging toward the neck of the bladder and losing themselves little less than an inch above the internal opening of that organ. If the finger is placed at the side of the cervix and close to it, the outer edge of the finger will correspond to the location of the uterer. The ureter when it is inflamed and thickened by tubercular disease, becomes a very sensitive cord. In the beginning the ulcerated surface is surrounded by small blisters, as a fine herpetic eruption might appear. When these objective symptoms appear, coupled with such subjective symptoms as are given above, the diagnosis is certain. The prognosis is generally considered bad, although there are cases which appear to get well. One can conscientiously recommend the operation of nephro-ureterectomy in those cases where tubercular process is confined to the ureter and kidney, or that have originated in those organs.

Treatment of Pneumonia.

D. Rochester (*Medical News*) states that recognizing the essentially toxic nature of pneumonia, its treatment may thus be briefly summed up:

1. The sustaining of the metabolic processes of the individual by the administration of easily digested or predigested food in small quantities at stated intervals, the administration of large amounts of pure water for eliminative purposes, and the administration of oxygen gas by inhalation whenever the absorbing surface of the pulmonary mucosa is involved to such extent as to interfere with proper metabolic oxygenation.

2. Elimination, (*a*) by the liver and bowel through the vigorous use of calomel and salts; (*b*) by the skin through sweats induced by external heat; (*c*) through withdrawal of blood when indicated by right heart distention.

3. Stimulation of heart by strychnine, alcohol or ammonium carbonate, and in suitable cases by the subcutaneous injection of normal salt soulution.

4. The local treatment of the lung by leeching, wet cupping or dry cupping, as indicated.

Successful Laparotomies for Intestinal Perforation in Typhoid Fever.

Dr. Richard H. Harte (*Ann. of Surg.*) reports 13 operations for intestinal perforation in typhoid fever, with 3 recoveries. The histories of the three successful cases are given. The first was a male patient of 29, perforation occurring in the third week. This was recognized soon after its occurrence, but consent for operation was not gained for five hours. Under ether narcosis laparotomy was done and the perforation found and closed. Patient made a complete recovery, although an empyema developed which had to be opened and drained. The second was a male patient of 39, who was admitted to the hospital on or about the tenth day with symptoms of peritonitis. Under ether, laparotomy was done, the perforation found and closed. The abdomen was flushed and the patient recovered. The third was a male patient of 13. Perforation occurred on the forty-sixth

day of the disease. Ether was given, laparotomy done, gangrenous appendix, found and removed, two perforations closed, and patient recovered.

He states that abdominal rigidity as understood by the internist and the surgeon, are different things. It is the keynote to early detection of perforation in the large proportion of cases. Success depends, of course, on the early recognition of perforation and prompt operation, even in the presence of shock. Every hour's delay proportionately decreases the chance of recovery. The author makes incision along the border of the right rectus, thoroughly flushing out the abdominal cavity with salt solution, and then with equal parts of salt solution and hydrogen peroxid, and finally douching with salt solution. The writer has collected 332 cases in literature. In 96 the median incision was made, with a mortality of 78 per cent. In 123 the right lateral incision has shown a mortality of 68 per cent. Mortality among males was 78 per cent; among females, 61 per cent. According to this table the mortality has steadily diminished. From 1884 to 1888 it was 90 per cent; from 1889 to 1893, 87 per cent.; from 1894 to 1898, 74 per cent.; 1899 to 1903, 69 per cent.

Postural Albuminuria.

William H. Broadbent (*Brit. Med. Jour*) describes a class of cases in which the characteristic feature is albuminuria on rising from bed in the morning, usually passing off in the course of the day. These cases are very common especially in boys and young men working up for examination. The albumin is not due to food. It does not appear if the patient remains in bed to breakfast, or after meals later in the day. It cannot be toxamic. It is in relation with the erect posture after a night's rest in bed, and also with imperfect cardiovascular adjustment to the changed hydrostatic conditions. The amount of albumin is generally small, but may be considerable. This form of albuminuria should be recognized, for the required treatment is just the reverse suitable in renal diseases. There is commonly a neurotic family history and invariably cardiovascular instability. The pulse varies greatly in frequency and tension. A high-tension pulse would warrant suspicion of actual renal disease or of juvenile gout. He has observed that the impulse of the right ventricle is forcible and the apex beat weak. The second sound is reduplicated when the patient lies down. The prognosis is favorable. Usually all the treatment required is good, simple food, fresh air, and vigorous exercise. Tonics were hurtful in many cases. Constipation should be corrected by aloetic or other aperient of the tonic class.

The Differential Diagnosis of German Measles.

W. L. Somerset (*New York Medical Journal*) makes the following statement: The eruption of German measles is essentially macular, and only by confluence comes to resemble that of scarlatina. When the eruption is less profuse and the individual macules retain their identity, the resemblance is rather to measles. German measles differs from measles in giving a leukocytosis. In the more marked cases—*i. e.*, with a more profuse eruption, not necessarily more severe clinically— the resemblance is rather to scarlet fever, and, without any doubt, German measles and mild scarlatina may resemble each other very closely. There is no one symptom on which we may rely. German measles never give a "strawberry" tongue; scarlet fever does not always give it. In German measles, the postcervical glands are often enlarged—by no means invariably. Pharyngitis is common to both diseases; conjunctivitis is exception in German measles; either may give a flushed face. Taken as a whole, however, the German measles case will have peculiarities that will not fit into our conception of scarlet fever—varied though that be. The temperature, pulse, and clinical condition will not "match" the rash in scarlatinal proportion. A German measles eruption, furthermore, is very likely to be patchy—intense over nearly one area and nearly, or entirely, absent over an area close by. German measles is more likely to be taken for scarlet fever than is scarlet fever for German measles.

Cancer of Stomach.

W. J. Mayo, in the *St. Paul Medical Journal*, says that early operation is a prerequisite, and diagnostic exploratory incision is necessary. We have, he says, operated on 135 cancers of the stomach, of which 34 were radical extirpations; five died within a month, and one later from another cause, too early to know the ultimate result. Of the 28 who recovered, the average length of life was over a year. It is surprising how few failed to live 12 months or more. One lived three years and seven months, several are alive now, after more than two years. I am convinced that cancer of the stomach will in five years give as good ultimate results after excision as breast operations. Sixty per cent. of cancers are located in the pyloric portion, that is, in the movable part of the stomach. The lymphatic arrangements are the same

as the vascular, and the dome of the stomach is isolated from this portion, having a different vascular and lymphatic connection. If all the lesser curvature be removed with the corresponding lesser omentum and all of the body and greater curvature to the left gastro-epiloic artery, the results in cancer of the pylorus should nearly equal what might be expected after complete gastrectomy.

The remaining portion of the stomach enables intestinal anastomosis to be made with considerable ease and the gastric pouch rapidly enlarges to assume the function of the stomach.

The operation can be made nearly bloodless by tying at proper points the four blood vessels which nourish the stomach, much as is the case in hysterectomy. By making the division of the stomach and duodendum with the actual cautery, wound inoculation is prevented, and by suturing all the coats with catgut through the cauterized area, distal to the holding clamps, neither the stomach nor intestinal canal is opened with the attendant risk of infection. Lastly, by completely closing both duodenal and stomach ends permanently, gastro-jejunal anastomosis can be effected in the usual way at a healthy situation on the gastric wall.

Practical Points on Hernia.

F. D. Gray (*Medical Record,* February 6, 1904) mentions a few points as follows:

Never forget the possibility of an unsuspected incipient or small hernia, as a possible cause of obscure abdominal symptoms or of obstruction.

Always remember the unusual as well as the ordinary locations of hernia.

Never practice taxis or delay operation in strangulated cases, nor neglect to open the sac and carefully inspect the contents.

Bear in mind the simple problem of radical cure—restoration of smooth, flat peritoneum, aponeurosis, and muscle as building materials.

Transplantation of the cord is not an essential of the Bassini or of the Halstead method.

A successful operation on inguinal or femoral hernia dipenses with the necessity for even a temporary truss, but after a cure of umbilical or ventral hernia a well-fitting abdominal supporter is a comfort.

Removal of the entire sac is not always necessary, and in the inguinal variety the distal portion is better left than to risk injury of the cord by a difficult and tedious dissection.

The radical operation is one of the safest and most certain in surgery, and on that account may properly be advised as routine measure.

On the other hand, it should be remembered that in childhood all forms of hernia are usually curable by persistence in the use of suitable truss, while after thirty-five the mortality rate increases, and as activity usually then decreases, a truss answers very well.

Finally, young and middle-aged adults—especially males pursuing an active life—ought by all means to have the benefit of an operation which carries practically no danger, relieves them from the discomforts and dangers incident to wearing a truss, and the inevitable, even if small risk of strangulated hernia.

Complete Adhesion of the Soft Palate to the Pharyngeal Wall.

Dunbar Roy (*Alabama Medical Journal*) reports this interesting case: A male aged 65, complained of inability to breathe through the nose for several years.

Thin, emaciated and weak, upon examination found palate and lower pharyngeal wall continuous.

After cocainizing the parts, a thorough examination with the probe was made to see if there was the slightest communication between the pharynx and naso-pharynx. Absolutely none could be discovered, and even by the most violent efforts on the part of the patient, no air could be made to pass between these cavities.

On examining the nasal cavities, the membrane was seen to have that pale, gelatinous appearance, which is so often seen in nasal stenosis where the naso-pharynx is filled with adenoids or other growths. A large amount of mucus secretion was found, which was in nowise offensive in odor.

I asked the patient how he relieved his nose of this secretion. His reply was that "when it filled up he held his nose down and let it run out."

A strange feature of the case was that the ears were very little affected, and his hearing almost as good as we would expect to find in a person of his age. The drums themselves showed very little changes. Evidently the nasal stenosis had not affected the eustatchian tube, which goes to prove the fallacy of those aurists who place so much dependence upon nasal stenosis as a cause for aural deafness. By questioning the patient, I was pretty well convinced that past syphilitic ulceration was the cause of the adhesive process. The question of the moment, however, was how could this condition in the throat be remedied. I delayed doing anything for a week

in order to look up the literature and see what surgical remedy was advised. I found absolutely nothing which threw any light on the subject. Consequently at the patient's next visit, I attempted to sever the parts, under cocaine anæthesia, by using a curved septum knife with a cutting edge on both sides, passed close to the pharyngeal wall up into the naso-pharynx. Only a very small opening was made at this sitting, since the severe gagging on the part of the patient prevented any prolonged manipulation.

The patient being taken sick again, he did not present himself for three weeks, when it was found that the slight opening made had completely closed. The patient was now placed on the iodides and his system built up before any further attempts were made to remedy the throat condition. In two months he had so much improved in strength and appearance that I again attempted, under cocaine, to make an opening through the cicatricial adhesion. I succeeded in making an opening as large as a pencil, through which a bougie was passed. This was given to the patient with instructions to use it three times daily. The patient returned again with the opening in good condition, but after that he failed to put in an appearance, and since then I have not seen him.

A Case of Cerebellar Abscess of Otitic Origin.

G. T. Hankins, (*Australian Medical Gazette*) describes a case of this character: A female child, aged 10, had been ill for one week with pain in the right ear, which had been discharging offensive pus for some years. The next day there were convulsions which lasted about thirty-six hours. Since then, more or less unconsciousness, with blindness, has been present.

Patient lies on her side with knees drawn up and head retracted; Kernig's and Babinsky's signs are absent; knee-jerks present; pupils equil and react; temperature, 98 degrees.

Cerebro-spinal meningitis was suspected; lumbar punctures were made, but no organisms found. Temperature now normal; no optic neuritis; points to right mastoid as seat of pain.

Next day lumbar puncture under chloroform; under anæthetic breathing ceased, and was not restored until artificial respiration continued for two hours.

On the following day, with no anæsthetic, mastoid antrum and cells with tympanum and attic were cleared out. No actual pus was seen, but granulations and ossicles were removed. The removal of bone was extended backward. On opening the groove of the sigmoid sinus, pus appeared, and the bone was removed for the whole length of the groove, and granulations curetted away. The intracranial pressure was so great that the walls of the sinus were in apposition, and it was difficult to make out its margins. The dura was incised over what was supposed to be the sinus and a free flow of blood obtained, showing absence of thrombosis.

The bone was removed still further backward until well behind the sinus. The bulging dura was then opened and a pair of sinus forceps passed into the substance of the cerebellum. At a depth of about one and one-half inches pus was reached and the forceps passed in for another inch without meeting any resistance. About an ounce of pus flowed away, and a fair sized rubber tube about one and one-half inches long was inserted.

Immediately after the escape of the pus the patients condition improved, and she became more conscious, answering when spoken to. Four days later the improvement gave place to restlessness, unconsciousness returned with convulsions, and death ensued on the ninth day. Autopsy showed a second and third abscess cavity.

Nervousness in City Children.

Archives of Pædeatrics editorially deals with this object as follows:

One of the most important features of medical practice in large cities, and especially among the children of the better-to-do classes, is the increasingly frequent occurrence of nervous conditions of various kinds among growing children. These conditions not only produce symptoms in themselves, but lead to the exaggeration of the symptoms of other ailments, and frequently make diagnosis more difficult than it would otherwise be, because of the atypical symptoms they introduce. Even slight febrile conditions in nervous children give rise to a severe rigor, to mental symptoms bordering on delirium and to functional disturbances, especially in the gastrointestinal tract, the kidneys and the skin, which are unwarrantably severe. As a matter of fact, the height of the fever itself depends not a little on the child's nervous condition and the resistive vitality that enables it to withstand the thermic conditions. Small disturbances of heat equilibrium produce a distinct rise of temperature that may persist for several days.

It is very evident that this supersensitiveness is due to unnatural conditions in child life. If there is anything that is typical of the young animal and the young child it is the restlessness that characterizes them,

so that normally only a small portion of their waking state is passed at rest. This is, of course, an inconvenient thing in modern city life. Children cannot be allowed to run around the house. In apartments they must be kept quiet, or the complaints of the neighbors will make life intolerable for the rest of the family, and at most a few hours a day of outdoor air and play can be secured for them. Only too often this so-called playing out doors is really a rather solemn walk to the park with a nurse who has instructions that the children must not be allowed to associate freely with other children, lest they should be exposed to some contagion.

There is no doubt that a prominent though often unrecognized factor in the production of the nervousness of city children is the present system of teaching in the public, and consequently also in other, schools, which assumes that education is proportional to the amount of information, useful and otherwise, which can be crammed into children. In order to secure the co-operation of children in this mistaken notion, competitions and examinations are devised, that to a sensitive ambitious child become a positive nightmare of anxiety. The child's vital force during its development period is too precious to be wasted in this way. If to adults it may be said with perfect truth at times of strain, "You have not brain enough to run your business and nervous system," surely the same must be said to growing school children whose nervous systems are accomplishing the feat of their lives in directing the evolution of cells all over the body. Physicians are the only ones who seem properly to realize this, and their voices must be raised in protest and their intervention must protect those who early exhibit signs of nervousness.

Nervous diorders must be prevented rather than cured. As far as possible the the artificiality of city life must give way, for the children at least, to a return to nature—spontaeous play in the open air, plain living and long hours of sleep after healthy fatigue. Parental attempts at the encouragement of precocious solemnity in children, by display and imitation of their elders, must be firmly discountenanced. There is in the bringing up of children the one opportunity for the present-day physician to assume the important role of domestic confidant and adviser so long and so satisfactorily held by the old-time family physician. For the sake of the rising generation there is here a place to be filled that must not be neglected, or it will prove a costly oversight.

Drug Eruptions.

G. Pernet (*British Medical Journal*) classifies and discusses the different blood eruptions as follows:

Erythematous, uriticarial, papular and desquamating rashes. These are the commonest drug eruptions met with. Belladonna produces symmetrical cutaneous rashes, sometimes associated with erythema multiforme, and wheel-like patches. Scarletiniform rash from the internal administration of this drug is rarely seen. Chrysarobin at times leads to a marked diffuse erythema, accompanied by conjunctivitis, if it has been applied near the eyes. Mercury may cause anything from a slight erythema to a severe eczematous-like irritant dermatitis. Such a rash may become generalized, and instances of fatal universal dermatitis have been recorded. In syphilis mercurial rashes were often attributed to the lues venera itself, and the drug with unfortunate results. A localized dermatitis following the use of blue ointment for pediculi is not uncommon. Arsenic produces erythematous eruptions on the trunk which are either diffuse (scaratiniform, morbiliform, erythrodermial) or circumscribed (papular, circuiate, etc.) The lesions also simulate seborrhoeric dermattis, psoriasis, lichen planus and syphilides. Iodoform acts as a cutaneous irritant in some cases, producing urticarial and erythematous conditions. The same may be said of its substitutes. Copaiba produces a papular, scarlatiniform, of morbiliform eruption. Turpentine also gives rise to similar rashes. Quinine and salicin both produce erythema, especially in patients with generalized skin diseases. Borax is stated to have produced psorasis, but this the author nas never seen. It does cause erythema. Opium, morphine, potassium chlorate, digitalis, antipyrine, sulphonal and chloral all produce erythematous rashes, as likewise do chloroform and ether anasthesia and diptheria antitoxine.

Aconite.

Arthur E. Elliot(*New York Medical Journal* January 9) says, concerning aconite as a vasodilator, that the slight fall of blood-pressure followig the use of therapeutic doses of aconite is mainly brought about by stimulation of the cardiac inhibitory center in the medulla. Most authorities deny the influence of peripheral (vasomotor) factors in producing this primary slowing and reduction of pressure. By diminishing the force and frequency of the heart's action blood-pressure is lessened, but cardiac sedation is a very different thing from vasodilation, and in conditions of ex-

cessive peripheral resistance, with high tension and cardiac hyperthrophy, as in chronic nephritis, it is doubtful whether aconite is a substitute for vascular drugs of acknowl edged potency such as the nitrates. Circulatory crises in such cases demand relief to the heart from peripheral obstacle, and he believes that there is some question in regard to the employment of aconite under such circumstances. Experimental evidence indicates that aconite is not an active vasodilator, and in the face of the extremely vicious peripheral conditions which exist in renal disease, it is hardly to be believed that the relief obtained by this action as a cardiac sedative will prove adequate, while any advantage secured in this manner is gained to the jeopardy of the heart. The hypertrophied heart of renal disease inevitably tends to failure, and if the myocardium is already the seat of degeneration, aconite may, under such circumstances, work decided harm by interfering with cardiac nutrition. He further says, too, that toward no other drug in the entire pharmacopea is idiosyncrasy so often manifested, and advocates great caution in its use in cardiac therapy, and cautions as to the unexpected susceptibility which is often manifested toward its action.

Surgery of Acute Appendicitis.

C. B. Lockwood, in the *London Medical Lancet*, says: The main points to be taken into consideration before deciding to operate in acute appendicitis are: (1) The mode of onset, including the intensity and duration of the pain, the rigor, and the vomiting. (2) The pulse, temperature and respiration. (3) The degree of constipation or obstruction. (4) The condition of the abdomen as regards tenderness, rigidity, hardness, distensions, œdema, redness and mobility of the abdominal walls and of the intestines. (5) Micturition. (6) The inflammatory swelling. (7) The presence or absence of complications, such as colitis, nephritis, cystitis, pleurisy, pneumonia, subdiaphragmatic abscess, hepatic abscess, septicæmia, pyæmia, tubercle, actinomycosis and malignant disease. Pregnancy is an occasional and serious complication. When in doubt, operate. The author does not favor the use of morphine or of purgatives. A small dose of opium given by the rectum is all that is required, and that not often. Enemata are as effectual as purgatives, and much safer. In operating during acute appendicitis, the presence of abscess is always to be reckoned with. As regards the question of searching for and removing the acutely inflamed, perforated, or gangrenous appendix when pus is present, he holds that it is better to make a determined effort to remove the appendix than deliberately to leave it behind. The author recommends biniodide catgut for securing the bleeding vessels, the mesoappendix, the stump of the appendix, the omentum, and the layers of the abdominal wall. When pus is encountered the wound should be drained by means of rubber tubes and gauze. The three chief complications to be feared are shock, vomiting, and flatulent distension.

Treatment of Acute Laryngitis of Singers.

Curtis (*Laryngoscope*), in the acute laryngitis of singers, prescribes either absolute silence or a tone whispered on the lips with no laryngeal quality in the voice. This must be enjoined till the sound written *humph* may be made without effort through the nose, the mouth being closed. Afterwards vocal exercises should be employed, using words like *ming, mong; ding, dong; mow maw*. Strychnine should be given from the first, and static or faradic electricity applied along the course of the recurrent laryngeal nerves. At this stage the use of adrenalin chloride solution sprayed into the larynx before doing the tone exercises is of the greatest value. He also recommends massage on either side of the trachea and thyroid, as well as under the ramus and angle of the jaw. After the massages a cold pack is applied to the throat, and the pyriform sinuses are swabbed out with tincture of iodine and glycerine (equal parts) to stimulate the nerves and produce a counter-irritation without the vocal larynx. This method of procedure will often abort a commencing laryngitis. After a laryngitis has been relieved in this manner, a spray of adrenalin (1-5000) should be used before a performance, alternated with an inhalation of menthol in albolene (5 to 10 grains to the ounce).

An Aseptic Poultice.

Dr. Scanlan, (*Wisconsin Medical Journal*, January, 1904.) The old-fashioned poultice was a means of hastening resolution in local inflammatory conditions. Unfortunately such poultices were not aseptic. It is important that a poultice should be aseptic even on the unbroken skin. A recommendation of the late C. T. Parkes was to use alcohol and boric acid as a fomentation. Out of Parke's idea he has developed an antiseptic poultice. It is composed of alcohol 4 ounces, pure glycerin 4 ounces, and boric acid 3 drachms. Absorbent cotton is saturated with this mixture. This is placed over the surface of the swelling and over the whole oiled silk or gutta-percha tissue. The absorbent cotton is kept moist by applying a little of the mixture every hour. If in-

flammation is slight the mixture should be diluted with equal quantities of water. The effect of the glycerin is to cause a marked depletion of the tissues by osmosis. This is the basic principle employed in the various "antiphlogistine" mixtures on the market. No possible harm can be done by such a mixture unless the proportion of alcohol is too large, in which case it may blister.

Modern Views of Gastrointestinal Troubles and Their Treatment by Massage.

Gustaf Norstroem in *Medical Record* for February 6, 1904, gives the results obtained from massage in stomach affections by various authors and calls attention to the method used by himself. Drugs usually employed are given up soon after instituting massage. Hypochlorrhydria is benefitted by the increased blood supply and glandular stimulation. Atomy and hyperacidity are benefited in a similar way by causing a return to the normal nervous and vascular equilibrium of the stomach. Idiopathic gastralgia is usually amenable to this treatment. Gastroptosis is benefited only in as much as the muscular and secretory functions are involved. The position of the organ is unaffected by the massage. Cancer and chronic ulcer are contraindications. A number of cases of chronic constipation are cited where massage was used with excellent results.

Lead Poisoning.

From the study of a case reported and of the literature, Spiller (*Journal of Medical Research*) concludes that lead affects the brain and its pia, the nerve cells of the anterior spinal horns, the ganglia on the posterior roots, the peripheral nerve fibres and the muscles. It seems to be impossible to tell whether its effects are first manifested in the alteration of the peripheral motor fibres or of the motor cell bodies of the spinal cord, but since both peripheral motor fibres and motor cell bodies are sooner or later affected, the question is not important. The significance of the poliferation of endothelial cells of the capsules in the spinal ganglia and on the cerebral pia is difficult to determine.

Remarks upon Temperature.

M. S. Pembrey, in the *British Medical Journal*, February 27, 1904, considers the subject of temperature. The conclusion drawn from numerous observations made at different times of the year and upon infants of different ages is that the power of regulating temperature is incompletely developed in the newly born. The regulation of the loss of heat is imperfect. This is markedly shown if the infant is insufficiently clothed when it is exposed to even moderate cold. The regulation of the production of heat by variations in combustion is also incomplete, and only within narrow limits can the newly born respond to changes of external temperature in a similar manner to the response of the adult. Many premature infants have been reared by proper attention to the temperature of their surroundings. Even moderate cold is not a stimulant, but a depressant to premature infants, for they can regulate neither the loss nor the production of heat. The internal temperature of a healthy man shows a range from 96.8 degrees F., to 100 degrees F.; these are average figures for the temperature of the rectum or urine, and do not include the absolute physiological range. Muscular exercise causes a marked rise in the temeprature of the rectum and urine of healthy men. There is no evidence to show that the rise in the internal temperature is injurious; it seems that it may be beneficial Undoubtedly heat-stroke and heat-exhaustion are due to a disturbance of the nervous control of temperature, brought about in most cases by muscular exercise in unsuitable clothes and in hot surroundings laden with moisture. In the healthy man the nervous control of temperature is so well developed that his internal temperature is practically the same whether he be living in the Arctic regions or in the tropics. A man can compensate for large differences in external temperature even apart from alterations in clothing. The two natural methods of increasing combustion are cold and exercise. Alcohol acts upon the vasomotor system and also upon the nervous control of the production of heat. The lowest temperatures recorded in men, who have recovered, appear in drunkards who have been exposed to cold. Anæsthetics rapidly paralyze the nervous regulation of temperature. Under pathological conditions the temperature of man shows a range of about 39 degrees F., from 75.2 degrees F. to 114.8 degrees F. Higher and lower temperatures have been observed in moribund patients. These temperatures, however, are well authnticated, and have been observed in cases in which recovery took place.

Head Injuries.

English (*The London Medical Lancet*, February 20, 1904), has collected the notes of 300 such cases, which he classifies as follows: 1. 100 consecutive cases of fracture of the skull, seen one year or more after injury; 2. 100 consecutive cases of concussion, contusion, or laceration seen after the same interval; 3. 100 miscellaneous cases. Of the first two classes 79 showed no after effects, 92 showed slight effects, and

only 29 showed marked after effects. Some degree of mental impairment, though rarely enough to be classed as insanity, occurs in ten per cent. of the patients. Twelve of the patients had died, but in only one was death the direct result of the head injury. The average interval between the date of the accident and the return to work after simple concussion was four and one-half weeks, after cerebral contusion nine and one-half weeks, and after a fracture of the skull or cerebral laceration thirteen weeks. In ten cases the patient had to give up his trade. Beneficial effects from head injuries are confined to fiction. Inadequate mental rest is responsible in most casees for imperfect recovery. Operation is of the greatest importance in all depressed fractures of the vault. Injurious effects are most likely to result in early life and in old age. Litigation for damages often inhibits recovery; apart from malingering recovery often accompanies the termination of law suits. Chronic headache is the commonest symptom, and is present in almost every case where there are after effects Its varieties are many. It may be local or general, among the focal forms are: (1) Neuralgic headache, associated with scars; (2) headache with local tenderness; (3) local fixed pain without localized tenderness; usually due to local intracranial lesion. Traumatic cephalagia is frequently aggravated by alcohol. Surgically the most important condition is osteosclerosis, the pain originating in the sclerosing bone; it is peculiarly amenable to operative treatment. The pain is fixed and intense, with characteristic tenderness on pressure. Vertigo occurs in many cases and may be persistent. It was present in 22 out of 100 fracture cases. It is independent of any aural symptom, occurs usually after sudden movement, and is most common in the morning. Attacks of vomiting are sometimes found, and a change of disposition or character is not infrequently noticed. The patient may become depressed or irritable. Other symptoms are nervousness, inability for mental or physical exertion, disturbance of sleep, increased susceptibilty to the influence of alcohol, and inability to stand high temperatures.

Alcohol and Life Insurance.

Bisbee (*Journal of Inebricty*) finds all applicants for insurance as follows: The man who is and always has been a total abstainer; 2, the man, a total abstainer at the present, who has been a drinker; 3, the moderate drinker; 4, the man who is ordinarily temperate, but two or three times a year on special occasions gets intoxicated; 5, the man who has violent outbreaks of intemperance lasting a few days or weeks and is temperate in the interval; and 6, the chronic, steady drinker to excess. The last three classes can be ruled out; there is no place in insurance at the ordinary rates for them. The writer makes a distinction between the moderate drinker and the immoderate moderate drinker. The second of these is the most important. They are generally sober in appearance, and respected men in society, never get drunk, but take more or less liquor at different times during the day, more than they realize or their friends suspect. Their systems are constantly charged with alcohol, which is sure to cause irreparable damage sooner or later. This is the most dangerous class for any company to write. The line of demarcation between them and the really moderate drinker is hard to define; each must be studied on its own merits, and a decision can be reached only after considering carefully each individual case. Many intemperate men will receive policies in spite of the greatest care; it is impossible always to ascertain the facts. As regards those in the liquor trade hef avors the wholesale rather than the retail dealers, but liquor dealers as a class are not good subjects for life insurance. Any man connected with the liquor trade should be considered uninsurable at the ordinary rates unless it can be proved that his habits are beyond reproach. The only remaining class is the reformed drinkers, and he thinks the only safe working rule is to regard these as unacceptable unless their reform is of at least five years' standing, and it can be shown by trustworthy evidence that they are total abstainers, that the reform took place before the age of forty, and searching medical examination shows that the constitution has not been appreciably injured by past dissipation.

General Peritonitis Complicating Scarlet Fever.

McCollom & Bapst (*Boston Medical and Surgical Journal*) report two such occurBrences out of 8,000 cases. One case was that of a man thirty-one years old, in whom the attack was fatal; the other that of a boy five years old. The details of the latter case are as follows: The boy was brought to the hospital suffering from diphtheria; two days after entrance the skin flushed, and on the third day scarlet fever was obvious. Twenty-three days after entrance the boy vomited and complained of abdominal pain. The urine became slightly albuminous, and the tenderness and rigidity of the abdomen continued, as did the vomiting. Ten days later the umbilicus began to

protrude, the area around being red, swollen and painful, while the abdomen was dull in the flanks.

Forty-three days after entrance the abdomen was tapped in the median line, and 21 ounces of pus withdrawn, a culture from which showed streptococcus pyogenes. On the following day the umbilicus ruptured, and fluid leaked from it for several days. On the fifty-first day a few drams of pus were aspirated from the left side of the chest. When the boy was taken from the hospital, against advice, there were still signs of fluid in the chest and abdomen. Four months later he was shown at a meeting of the Boston City Hospital Clinical Club, apparently well.

They conclude in regard to treatment that, if the signs of peritoneal infection are slight, palliative measures, such as enemata, turpentin stupes and rectal feeding will suffice. If the pulse steadily rises, and pain, tenderness and spasm increase, operation is imperative. On account of the kidneys cocain should be substituted, whenever possible, for ether. The operation should consist of rapid celiotomy, thorough irrigation with hot salt solution and drainage. There should be energetic stimulation by caffein, strychnin and digitalis. The prognosis is always very grave.

Results of Oophorectomy for Mammary Carcinoma.

G. E. Herman in the *Medical Lancet*, January 16, gives the recent history of a case which was published in the *Lancet* six years ago. The carcinoma under discussion was removed in 1890. At the end of 1896 it had recurred, invading the axilla and neck so extensively as to be absolutely inoperable. In 1897 the ovaries were removed. Six months later none of the recurrent growth could be felt. The patient remained in good health for four years when she began to develop repeated sweats and low-grade temperature manifestations. A month later she had an attack of pain in the left kidney so severe as to necessitate the use of morphine. Shortly after this she began to suffer from epigastric pain after taking food, vomiting commenced and her feet became edematous. There was no albumin in the urine, nor fluid in the abdominal cavity. Three months later a little blood was present in the urine. Dyspnea became marked, retention of urine subvened and the patient died shortly after. No autopsy was made, but there can be no doubt that she died of recurrent abdominal carcinoma. Whatever criticisms may be made upon the technic of oophorectomy in these cases, it is self-evident that through its agency this woman was granted 4½ years of active and healthful life. The cases in which, up to 1900, oophorectomy has been performed have been collaborated by Stanly Boyd. The broad result which they show is that in about one-third of the cases the patient obtained "more or less marked benefit." This benefit consisting of retrogression of the cancer and a period of a few months or years of good health. This is too much to be accounted for by chance. The objections urged against the operation are three: (1) The immediate risk of life. This, in competent hands, is exceedingly small. (2) The temporary suffering caused by the operation. This is not, however, to be compared with the possibilities of ultimate benefit. (3) The effect of removal of the ovaries on certain functions. This, in the case of a patient doomed to die from carcinoma at no very distant date, is not worth considering. As opposed to these objections the patient can faithfully be told that there is one chance in three that the disease will retrogress and that she will have some months or perhaps some years of good health. It seems highly probable that the future of the operation is assured.

Genito-urinary Tuberculosis.

Guy L. Hunner, (*Bull. Johns Hopkins Hosp.*, Jan., 1904), makes a report based on 35 cases, all of which were operated on. The average age of the patients was 31½ years, showing that the disease is one of young adults. The previous history revealed that four of the cases had had earlier symptoms of tuberculosis in other regions—joints, glands, abdomen or lungs. Within the genito-urinary tract itself the infection is generally primary in the kidneys, as shown by the clinical and pathological findings. Nevertheless, it is a striking fact that in fully one-half of the cases the earliest characteristic symptoms are produced by the bladder, owing to the secondary infection of that viscus. The disturbances and symptoms due to tuberculosis of the kidney when confined to that organ are generally vague and difficult to recognize. The disease may easily be confused with malaria or typhoid, on account of the general symptoms and the temperature curve, or with appendicitis, gall-stone colic, movable kidney (Dietel's crises), and so forth, on account of the subjective symptoms. "Any symptoms referable to the urinary tract" may mask a true renal tuberculosis. The diagnosis depends on the palpation of the enlarged kidney through the abdomen, and of the thickened and tender ureters through the vagina. It may be completed by a cystoscopic and bacteriological diagnosis. Opposed to the difficulty in diagnosis, is the

comparative case in treating the cases, provided they present themselves early enough. The entire problem for the surgeon is the extirpation of the infected tissue—kidney, perhaps ureter, or even part of the bladder. The fact that the disease is generally primary in the kidney, and is in the vast majority of cases localized to one side tends to make this effort quite feasible, and gives a good prognosis for radical operations, as is demonstrated by the records of the cases treated at Johns Hopkins.

The Treatment of Puerperal Septic Infection.

Chas. Jewett (*Brooklyn Medical Journal*, January, 1904), states that the diagnosis must exclude non-septic infectious diseases and other than pelvic sources of infection. It should also be known whether the vagina or the uterus is the seat of the infectious focus. In nearly all cases the primary seat of infection is the uterine cavity.

Membranous patches in the vagina may be treated with applications of tincture of iodine or of strong carbolic acid, followed immediately with alcohol, and repeated two or three times daily; or may be dealt with after the method of Webster, by vaginal packs of glycerinated formalin.

When the uterine cavity is the seat of infection the uterus should be explored digitally to learn whether it contains fragments of placenta or of membranes or blood-clots.

Necrotic material should be removed, best with the gloved finger and dressing forceps. Debris may be swept out with a soft cotton ball held in dressing forceps, or by irrigating with normal salt solution. The foregoing manipulations should be conducted on a table with due aseptic care.

The dull curette is indorsed by many authorities, but results are better without even dull curetting.

Repeated curetting or douching is especially injurious.

When the uterus is empty no local measures are indicated. It should be remembered that about eighty per cent. of streptococcic infections of the endometrium recover without treatment. On the other hand, most virulent infections will end fatally whatever treatment is employed. The temptation is not to do too much

The systematic treatment consists in bracing the resisting powers and in promoting elimination. For the former purpose strychnine and alcohol are the principal measures. Elimination is favored by one or two bowel evacuations daily, and by diuresis. Plenty of water should be introduced into the circulation by the stomach by enteroclysis, or if necessary by hypodermoclysis. The addition of acetate of sodium to the fluid injected adds to the diuretic effect.

Antipyresis when required may be effected by sponging or by wet sheet packs with water at a tepid or neutral temperature. My practice is to wet the double gauze sheet at short intervals with water at body temperature. This involves no shock, is more agreeable to the patient, and more successfully controls the pyrexia.

Puscollections should be detached promptly and be dealt with as in other conditions.

Particular attention should be paid to the regulation of the feeding.

Under this simple plan of treatment the prevailing mortality may be very greatly diminished.

Chronic Adhesive Sclerosing Peritonitis.

H. G. Wetherill (*Medical Record*, Jan. 23, 1904) discusses this subject as follows: (1) The rareness of the disease. (2) Failure to recognize it generally and to describe it fully on this continent, though it has been long well known abroad. (3) The pathognomonic sign, namely, inability to unite the shrinking peritoneum when once divided during the course of the operation, which so far as the writer is aware he was the first to observe and describe. (4) The essential chronicity of the disease, as indicated by long-standing symptoms otherwise unexplained, and by the shrinking and retraction of the peritoneum at the first operation, sixteen months prior to the patient's death, which proved the previous existence of the malady, and that it was not directly or indirectly the result of the operation. (5) The great importance of covering all denuded surfaces when, before or during the operation, chronic adhesive schlerosing peritonitis is diagnosed. (6) The characteristic subperitoneal connective tissue hyperplasia, which is the parological feature of the disease. (7) The shrinking or contraction of the peritoneum caused by it, the clinical feature. (8) The possible significance of a somewhat similar pathological process taking place in the skin, coincident with unusual gastrointestinal symptoms otherwise unaccounted for. (9) The danger of serious sequelæ incident to its surgical treatment. (10) The possibility of accomplishing much through medicinal measures, when the etiology of the disease is better understood. Potassium iodide and inunctions of mercury are worthy of careful consideration and trial in any suspected case of plastic peritoneal sclerosis.

The Use of Hard and Soft Paraffin for Subcutaneous Injections.

Albert E. Stein (*Medical Record*, Jan. 23, 1904) concludes his paper as follows:

(1)The method of paraffin injections is mainly adopted for the correction of small and superficial deformities, such that do not require the injection of large amounts of paraffin. (2) The paraffin to be used should have a melting point of about 41 degrees C. Harder paraffin should only be injected to fill up existing cavities with solid walls. In all other cases it is contraindicated, on account of the greater danger of producing embolism. (3) The mass should never be injected in a fluid form, but is to be used in the form of a paste. (4) There are no sound practical nor theoretical reasons to justify our giving up the use of the soft in favor of the hard paraffin. (5) It is not advisable to inject more than three cubic centimeters at one sitting. (6) The injected mass is not absorbed but encapsulated, grown through with connective tissue, so that the result in all cases is a lasting one. (7) The edematous swelling immediately following the injection generally disappears in a few days.

Obstetrical Aspects of Pelvic Exostoses.

D. Daniel (*British Medical Journal*, Jan. 9,1904) believes that by "pelvic exostoses" ought to be understood osteogenic exostoses proper, as defined by Dupuytren and Broca. Inflammatory trophic and neoplastic growths must be excluded, as must those enormous tumors so often figured and described before anatomy and pathology had reached their present development. True exostoses of the pelvis arise at the points of union of the three elements of the innominate bone, the ischium, ilium and pubes, or at the junction of points of ossification in each of these elements. The special feature of these exostoses is that, appearing during the early period of development of the skeleton, they grow in proportion with the normal bones, and what is of special importance to the obstetrician, they cease to grow when the skeleton has reached its adult proportions. Diagnosis is often easy, as osteogenic exostoses are often multiple and are to be detected on the long bones of the extremities. When absolutely localized to the pelvis they are harder to diagnose. In a doubtful case their special situation at points of union of the different elements of the pelvis and a history of slow growth, or of no increase in size at all, will distinguish them from malignant tumors of the bone, hypetrophic osteitis, bony spines representing ossification of tendon, ossification of cartilage, and callus on fractures of the pelvic bones. The radiograph is of the highest value for diagnosis, and consequently for prognosis, when the subject is pregnant. It aids the obstetrician in defining whether spontaneous labor be possible, or if not, what operation will be called for.

Gall-bladder Surgery.

Maurice H. Richardson (*Bost. Med. and Surg. Jour.*, Feb. 11, 1904), presents a paper based on 200 operations, and many additional observations. As regards the dangers of the two operations, the author is of the opinion that in unchanged or in slightly changed gall-bladders, they may, in the hands of experienced operators, be considered very slight cholecystostomy and cholecysteotomy; on the other hand, in the case of thickened, contracted, adherent, gall-bladders, the dangers of either operation are very considerable. Leaving aside the element of danger, then, which perfection in technic tends to render more and more equal, the operations may be compared as to their immediate and remote effects. Richardson is of the opinion that drainage of the biliary passages is the one great benefit to be gained by the operation on the biliary passages, whatever may be the lesion for which the operation is undertaken." If now, the gall-bladder be excised, drainage must be performed through the hepatic duct. This necessitates a far larger incision and longer operation, a much less copious drainage, and imperils the subsequent integrity of the ducts through the danger of ulceration, necrosis and cicatrization. It seems logical to conclude, therefore, that cholecystostomy is preferrable to extirpation. As regards the remote effects, the chief question to be considered is that of reformation of stones in the diseased gall-bladder. He is firmly of the opinion that stones are practically always formed in the gall-bladder and never in the intrahepatic ducts; it is a tempting prospect, therefore, to remove the *fons et origo mali*. Clinical experience, however, has taught hi mthat only in the rarest instances are gall-stones reformed either in the bladder or the duct after cholecystostomy followed by a period of drainage. The argument seems, therefore, overwhelming in favor of cholecystostomy, and against extirpation.

Antiseptic Treatment of Pneumonia in Children

Dessau (*Medical Record*, February 13, 1904) believes that both lobar and lobular pneumonia are due to the action of the same specific germ in different degrees of virulence. It is held, according to this view, that broncho-pneumonia is in reality not secondary but a primary infectious process, just as lobar pneumonia is.

If we grant that both forms of pneumonia are self-limited, infectious processes, it is irrational, to be satisfied with a merely expectant plan of treatment.

He says carbolic acid, internally, has met the indications very well. To a child of three years the author gives one drachm of a two per cent. solution every two hours, using cold compresses locally.

Even albuminuria is no contraindication to the use of carbolic acid internally. All authors have called attention to the importance of keeping the digestive functions of the child in good condition during pneumonia. Abdominal tympany is particularly to be avoided if possible, owing to the embarrassment of respiration induced by it. Carbolic acid appears to control undue fermentation of the gastric contents, and is thus indirectly an aid in maintaining a more normal condition of digestion.

In addition to the carbolic acid, hydrotherapeutic measures are ordinarily used by the author in the treatment of lobar or lobular pneumonia, and if cough is very distressing, five or ten drops of paregoric are given at bedtime.

Other therapeutic measures are, in the author's judgment, not necessary, and this line of treatment has given him excellent results.

The Controlling Influence of Environment in Epidemic Infectious Diseases.

J. W. McLaughlin (*Texas Medical Journal,* January, 1904) states that the pathtivity of a microorganism varies directly invariable quantity. The pathogenic activity of a misroorganism varies directly with its capacity to manufacture disease-producing substances—toxins and toxalbumins.

The capacity of a microorganism to manufacture toxins or toxalbumins is affected by certain natural and artificial agencies; the change effected in the microorganism is called "attenuation."

The agencies or means used to attenuate germs—that is, to decrease their pathogenic activity—are unfavorable culture media, or are conditions of life in which the germs are compelled to grow.

Sunlight is a powerful, natural attenuating agent.

In the light of these facts the writer says he feels justified in the belief that there are other natural means of attenuating the microorganisms of disease, and in this way of modifying the type of epidemics, or of preventing their development.

The environmental conditions, for example, of cleanliness of the person, of the home, and of the municipality; of pure air in the home, the office and place of business, in the schoolroom, church and in all places where people congregate and germs find a breeding-place; of drainage, temperature, humidity, altitude and climate, are believed to be very important factors in determining the growth and the physiological capacity of germs to manufacture disease-causing poisons.

Treatment of Typhoid Perforation.

R. G. Le Conte (*Amn. of Surg.,* Jan., 1904) has operated on three cases successfully within the past month. In the first two the recovery was permanent. In the third, recovery from the primary perforation was assured by operation, but the patient died ten days later from a secondary perforation. Since the symptoms indicative of perforation are as yet by no means understood, a close review of these cases must be of great value. In general the histories were as follows: Case 1. Male, Russian Jew, thirty-eight years old, suffering from an attack of moderate severity; temperature on admission 102.2 degrees F. Twelve days after admission, during which time the case had presented no symptoms of an unusual character, temperature touched normal. Convalescence was uninterrupted, and he left the hospital fifty-six days after the onset of the attack. He was readmitted to the medical ward under the care of Dr. Stengel three weeks later. The temperature was 103.3 degrees F., pulse 112, respiration 38, tongue coated white, edges and tip red, very tremulous, a few rales posteriorly on the right side of the chest, spleen enlarged and tender. Abdomen rounded, soft, flabby, slightly tender; rose spots; urine, slight trace of albumin, hyaline and granular casts. Widal test not positive. It was a clear case of recurrence. On the eighth day after admission he complained of pain in the abdomen, which for twelve hours was not severe. At about the tenth hour of pain, the temperature was 101.2 degrees F., four hours later it had fallen to 97.8 degrees F., pulse 100; an hour and a half later there was profuse sweating with shallow respiration and anxious expression. At that time temperature was 97.6 degrees F., pulse 140, respiration 40; abdomen tympanitic, rigid and tender, especially on the right side. Three hours later, under ether, a three-inch incision was made in the right semilunar line below the umbilicus. This was three hours and a half after the first evidence of collapse, six hours and a half after the onset of severe pain and 17 hours from the first pain noticed. Some cloudy non-odorous fluid escaped. The cecum was brought out and eight inches up the ileum a large inflamed Peyer's patch was found with a small perforation in the center. The pelvis was thrown downward by tilting of the table, and the pelvic and peritoneal cavity irrigated with salt solution. It was mopped

dry, rubber drainage inserted and five wicks of gauze run between the coils. Temperature after operation, 98.2 degrees F., pulse 128, respiration 40. The temperature reached normal eight days after operation, and convalescence was uninterrupted. Case2. The Widal test was positive. On the sixteenth day immediately after a bath, he complained of sharp pain in the right side. There was no vomiting. Leucocytosis, 9,600; pain and tenderness increased. An hour later temperature 100 degrees F., pulse 110, respiration 24. Five hours after onset of pain he was operated upon. One foot from the cecum a large necrotic ulcer was seen with pin-head sized perforation; no attempt at walling off was seen. The hole was inverted. A wet toilet of the peritoneum was done; the reaction and subsequent convalescence was normal. Both these cases, in the opinion of the author, probably owed their recovery to the fact that the symptoms they presented were of an almost classic character. In neither case was any attempt evidenced of an effort to "wall off." In both cases the perforated area seemed to be in contact with the parietal peritoneum. This is much more sensitive than the visceral sheet and may be the reason why some cases present practical symptoms while others do not. The presence of omentum covering the perforation might in its lf be sufficient to delay the advent of symptoms for a fatal period.

Excision of Tuberculous Mass from Liver.

Robert M. Rome (*Ann. of Surg.*, Jan. 1904) reports an interesting case of this kind. The patient was a woman, forty-two years old, who had never been seriously sick but who had been "bilious" all her life. The family history was good, save that her mother had suffered from some obscure liver trouble. In the middle of August, 1902, she was suddenly seized with severe pain in the right lumbar region which lasted twenty-four hours, after which it decreased in violence, but the part remained tender. She was obliged, although able to get about, to favor the right side, because of a pulling pain there, and she was unable to sleep or rest upon that side. When walking, she bent somewhat to the right and stooped forward. Six weeks after the onset, she was operated upon; an incision being made over the site of a slight tumor which had developed at a point midway between the cartilage of the tenth rib and the crest of the ilium. The intestines were adherent to the liver, and after these organs had been separated, a tumor in the right lower lobe adherent to the parietal peritoneum was probable. It was apparent that it could be removed by cuneate section. The sutures were introduced half an inch apart and half an inch from the margin of the triangle. After a number had been inserted, the wedge containing the growth was cut away with scissors. The tumor removed was about the size of a goose egg and, despite the considerable area excised, a speedy tying of these sutures satisfactorily stopped all hemorrhage. The abdominal incision was closed without drainage. A microscopical investigation revealed a typical tubercle. Dr. Keen, in reviewing the surgical conditions of the liver, mentions (1) herniated left lobe, 5 cases; (2) syphiloma, 12 cases; (33 carcinoma, 17 cases; (4) angiofibroma, 1 case; (5) cavernoma, 1 case; (6) endothelioma, 1 case; (7) angioma, 4 cases; (8) adenoma, 7 cases; (9) sarcoma, 5 cases; (10) cystoma, 1 case; (11) small calculi, 1 case; (12) hydatid cysts, 20 cases. The case above reported adds another tumor to Keen's list.

Forcible Dilation of the Os by Means of the Bossi Dilator.

Gairdner, Eric D. (*Jour. of Obst. and Gyn. of the British Empire*, October 1903), records 14 cases which occurred in the ordinary indoor and outdoor practice of the hospital in which he used Bossi's dilator. The time taken to dilate varied from 3 to 36 minutes. The conditions necessitating operation were: Eclampsia, nephritis, abortion with hemorrhage, contracted pelvis, acute hydramnious with anti-partum hæmorrhage, and placenta prævia. In 10 cases there was no laceration, in two a slight tear, and in two the cervix was torn. In these two the time taken to dilate was 5 and 15 minutes respectively. In three cases Bossi's four-pronged dilator was used. The eight-pronged instrument when fully closed is equivalent in gauge to a No. 13 Hegar dilator.

He states that with the Bossi-Frommer dilator forcible dilatation of the os can be rapidly and easly performed, and in cases where the cervix has been already taken up, with scarcely any risk of cervical lacerations, provided that sufficient time be taken. Three minutes should be allowed to elapse during each centimetre of dilatation.

In cases where the cervix is not taken up, there is greater risk of doing it damage, owing to the prongs not passing completely through the internal os. This is more liable to occur when the cervix is dragged upon, and consequently lengthened by volsellum forceps being used to steady the organ. The dilator should therefore, if possible, be introduced without seizing the cervix with volsellum forceps, and when a slight degree of dilatation has been obtained the

instrument should be closed and withdrawn and an examination made before it is reintroduced, to ensure that the whole length of the cervix is being simultaneously dilated. Dilatation in these cases need not be slower than in the former cases, and can be accomplished with only a slightly greater degree of force. Forcible dilatation by this instrument is not accompanied by any greater degree of shock than is usual after any minor obstetric operation.

He says: "The instrument, especially the eight-pronged variety, is a very suitable and desirable one in cases where immediate evacuation of the uterus is considered necessary."

Gastric Adhesions.

Paton, acording to the *London Lancet*, says that in 5 per cent. of postmortems the records show evidence of present or ancient gastric ulcer. In 40 per cent. of such cases, according to Fenwick, there are adhesions. If careful examination is made, Paton estimates that adhesions will be found in the gastric region in about 2 per cent. of all postmortems. These may be due to stomach ulcer, gallstones, trauma, pancreatic disease, tubercle, syphilis, etc., but the only common causes are gastric and duodenal ulcer or disease of the bile passages. In 123 cases, Fenwick found adhesions to the pancreas, liver, or to both in 92, in the remaining 31 cases the stomach was attached to the colon, mesentery, liver or spleen, or to three or more organs. Adhesions to the anterior wall seem to have been absent. The situation is of importance, as the usual attachment is to one or more mobile organs which are liable to be dragged on. The adhesion may be close, broad or long and slender. A very unusual variety is that which occasionally occurs to the anterior abdominal wall, forming with the infiltrated stomach wall and the thickened adominal parietes a tumor, which may be easily mistaken for a new growth. Such cases of plastic perigastritis have been recorder by Billroth, Mikulicz and Mayo Robson. Such extensive adhesions may have been caused by local gastric perforation. The effect of these adhesions may be to distort or constrict the stomach or to interfere with its motility and contraction, as well as to involve other organs like the gall bladder, causing jaundice, etc. Pain and tenderness are the principal symptoms. Physical examination as a rule reveals nothing beyond tenderness, and there may be an increase in the size of the stomach. The appearance of the tumor may suggest malignancy, but the long continuance of the illness without serious interference with the general health will be against this. Exertion seems to bring on pain and change of position may relieve it. The ingestion of food may have no effect whatever. The writer recommends verifying the diagnosis by exploratory incision; this should be recommended to patients after a fair trial of dietetic, medicinal and general hygienic measures has failed. If adhesions are found, they should be separated or divided. To prevent adhesions reforming, he says that aseptic methods are the best, but no antiseptics should be used within the abdominal cavity. If any fluid is used, it should be sterile saline solution. Vogel has found that greater freedom of movement than is usual after abdominal operations is also useful in preventing adhesions, as well as mild laxatives and the use of atropin, salicylate, general massage, etc. In preventing peristalsis and where adhesions can not be separated, and it is certain that reformation would occur and the trouble seems due to interference with the stomach emptying itself, pyloroplasty and gastrojejunostomy are valuable. The latter is usually the better.

A Granuloma of the Nose, Due to Iodide of Potassium.

C. Percival Crouch (*The British Medico-Chisurgical Journal*) mentions a case of a man who was put on antisyphilitic treatment for disease of the nose and larynx. After a few weeks, some spots appeared on his forehead like an iodide rash, and a small raised granuloma appeared on the tip of his nose and rapidly increased in size, while similar growths presented themselves on forehead and temples. It was decided that the growth was due to the action of potassium iodide on a syphilitic subject, to a great extent increased by an existing heart lesion, which prevented the proper elimination of the iodide. Iodide was discontinued, arsenic was given, and caustic applied. The growth has not returned. Acne due to iodine is apt to become tuberous. Iodide rashes are more apt to occur if there is either cardiac or renal disease present. An iodide rash may begin within twenty-four hours after the exhibition of 5 grains of potassium iodide three times a day.

Lipemia in Diabetes Mellitus.

Thomas R. Fraser in the *Scottish Medical and Surgical Journal* reports a case of diabetic coma in which a remarkable production of fat in the blood was not only demonstrated at the post-mortem examination, but had also been determined during the life of the patient. From a study of the subject, the author states that there is strong evidence in favor of the view that in diabetes the sugar in the blood may, by causes

which are not known, and by process which cannot at present be explained, abruptly undergo more rapid and more abundant chemical transformations than were previously occurring, with a result, in a considerable number of cases, of a sufficient acidosis to produce the peculiar intoxication which is distinguished as acetonemia, and in a small number of cases, of the formation also of a large quantity of fat in the blood, constituting the condition of diabetic lipemia. It is not improbable that in accordance with the amount of this fat in the blood the solvent capacity of the serum for oxygen would become reduced, and that thereby the death-producing power of the existing acidosis would be reinforced. He urges that in patients suffering from diabetes the urine and blood should be examined at intervals of one or two weeks for Bi-oxybutyric acid and fat respectively, so that the earliest warnings of danger may be obtained, and the earliest opportunity afforded for treatment by a liberal administration of alkalies.

Cardiac Tonics in Pneumonia.

D. B. Lees (*British Medical Journal*) considers that it is generally advisable to begin the use of heart tonics about the third or fourth day of the disease and that they ought to be given, if at all, somewhat freely.

Of these drugs, strychnine is probably the most useful and should be given hypodermically.

Atropine by subcutaneous injection is also very serviceable in children, but not so useful for adults because they suffer much more than children from the dryness of throat and other unpleasant effects of belladona. In children large doses of this drug will cause chiefly flushing of skin which is of no importance.

Oxygen by inhalation assists the aeration of blood in the lungs, and thus improves the quality of the blood supplied to the cardiac muscle. It is therefore truly a cardiac tonic. Its use should be begun as soon as cyanosis is definite, and should be continued for five minutes every hour, whether the patient is awake or asleep. It can be given without disturbing him in the least. Oxygen is certainly a most valuable remedy, and ranks with strychnine in the treatment of pneumonia. But neither strychnine nor oxygen, nor both together, will often save life if the right auricle be not relieved. After a bleeding they are powerful remedies; without removal of blood they often fail, and almost necessarily. It is good to maintain the strength of the cardiac muscle; it is still better to diminish its labor. It is best to do both.

Digitalis will not always reduce the frequency of the pulse in pneumonia, especially when the temperature is high. It is most likely to be of service after the relief of the right heart, when the fever is moderate and the pulse still remains weak and frequent.

Ammonium carbonate may be given when there is evidence of much secretion in the bronchial tubes.

Alcohol, though called a "stimulant," has not much title to be considered a cardiac tonic. It is essentially a vasomotor depressant, and as such may help the heart indirectly when the tension is high. There is also sometimes a temporary increase in the strength of the pulse after the administration of a moderate dose, probably due to increased blood supply to the cardiac muscle, through relaxation of coronary arterioles. It is therefore possible that repeated small doses may be of service in pneumonia, but the large doses sometimes advised are likely to do more harm than good. To imagine that brandy can "support" the heart when the right side is becoming paralyzed from overdistension is absurd. In such a case the only satisfactory cardiac tonic is a venesection.

Some of the Physical Properties and Medical Uses of Radium Salts.

Williams (*Medical News*, Feby, 6th) says that it maintains a temperature above its surroundings under thermal insulation; a temperature of 1.5 C. has been observed. It is luminescent. It is a spontaneous source of electricity. It gives out three kinds of rays, named by Rutherford, alpha, beta and gamma. It produces in surrounding objects what Mme. Curie has called "induced radioactivity," what Rutherford has called "excited radioactivity" and Soddy now terms "imparted radioactivity." With our present knowledge of the subject, the last name seems most appropriate.

The alpha rays are the most plentiful. They are easily absorbed and are slightly deflected by a strong magnetic field. The beta rays are less easily absorbed and are more strongly deflected by a magnetic field. The gamma rays are the most penetrating of the three and are not deviated by the magnetic field.

The rays from radium increase the electrical conductivity of gases, excite phosphorescence and fluorescence in certain substances, act on a photographic plate and produce both harmful and beneficial effects on animal tissues.

Radium rays do not show sufficient differentiation between tissues to render them of value for diagnostic purposes. They are, however, of value as a therapeutic agent. In using them, when a strong exposure is desired the metal box containing the salts is

placed *on* the part to be treated, if a weaker action is wished the box is placed at a greater or less distance, according to the needs of the case, the intensity of the rays diminishing as the square of the distance. Over-exposure may cause a burn, which may not manifest itself for some days. Exposures differ for different diseases, even superficial ones.

Of forty-two cases treated, nine were skin diseases, one a keloid, five rodent ulcers, twenty-three were epidermoid carcinoma and four "breast cases."

He states that there is much similarity between the action of radium rays and X-rays and that, if the results from the use of the former prove permanent, the two will supplement each other.

"Certain diseases promise to yield more readily to treatment by radium and others to X-rays.

"A disease that has attacked different parts of the body of a given patient may be better treated in certain regions by radium and in others by X-rays.

"It is quite possible that in some cases the two remedies used together on the same area and at the same sitting may accomplish better results than either alone."

Child Operated on for Intussusception at the Age of 3 Months.

Rutherford (*Glasgow Medical Journal*) describes the case of a child aged three months, who was admitted to the Royal Hospital for Sick Children on November 16th last, having been ill for nearly forty eight hours. The patient was a stout, health-looking infant; face somewhat sunken; temperature, 99.8 degrees (rectal); pulse, 120, regular and of good tension. The abdominal wall was lax, and from a little below the left margin down into the left iliac region an elongated tumor mass was easily palpable. *Per rectum* the apex of an intussusception could be felt about an inch and a half from the anus. The abdomen was opened for about three inches immediately to the left of the umbilicus, and with reduced. The apex of the intussusception was formed by the ileocecal valve. The child made a good recovery.

Typhoid Fever in Infancy and Childhood.

Cotton (*The Clinical Review*) states that the absence of a complete symptom-complex and the rarity of the demonstration of typical ulcers in the intestines long militated against the diagnosis of typhoid in infants and children. Bacteriologists, by means of the demonstration of the bacillus of Eberth and the Widal reaction, have been able to clear up the question of diagnosis and to show that no age is exempt from the invasion of the typhoid bacillus. The late epidemic in Chicago has served to demonstrate the frequency of the occurrence of unsuspected typhoid in children. In many instances cases presenting symptoms of the ordinary summer gastroenteric disturbances, or of malaise with slight rise of temperature, gave a widal reaction and careful observation demonstrated the undoubted typhoid infection. He reports twenty cases from his service in the Presbyterian Hospital during the months of August and September. The youngest patient was three years, the oldest twelve years of age. The Widal test was positive in all but one. The diazo reaction was found in only 12 cases. Roseola was present from the sixth to the tenth day in all but two cases. Tub baths were regularly employed, the temperature of the bath at the beginning being 95 degrees and later being lowered to between 70 degrees and 80 degrees. The baths lasted from ten to twenty-five minutes. There were no deaths and no serious complications in the series.

Case of Congenital Pulmonary Stenosis.

Kerr (*Chicago Medical Recorder*) reports a case of a boy, eight and a half years old. The family history was good. The pregnancy and labor were normal. Three children born after this one were free from any like complaint. The patient's only complaint was shortness of breath on exertion. He was well developed and well nourished. The examination of the heart showed: A diffuse apical impulse over a large part of the precordium, a double beat at the apex, a systolic thrill over the pulmonary area, systolic murmur over the pulmonary valve; the area of cardiac dullness was enlarged both to left and right. The liver was palpable; the spleen was not felt; the fingers and toes were clubbed.

The Complications and Sequelae of Pertussis.

Robertson (*Scottish Medical and Surgical Journal*) says that pertussis ranks third amongst the fatal diseases of children in England, and of the deaths due to it three-fourths occur in children under two years of age. The complications and sequelæ are so numerous and so prone to affect very young children that the disease ought always to be considered one of the most dangerous of infantile troubles. In the respiratory system, bronchopneumonia, emphysema, pneumothorax, bronchiectasis and phthisis are met with. A fatal case of edema glottidis has been recorded by Beneke, and many cases of death have been attributed to spasmodic croup. Of the nervous complications convulsions and paraly-

ses are common. The latter are of several varieties and of undetermined causation. Hemiplegia, diplegia, localized paralysis and ascending paralysis have all been observed. In the digestive system vomiting of blood, catarrhal enteritis or colitis, and peritonitis may occur. Dilatation of the heart from the strain put upon it may occur. Albuminuria and glycosuria are met with. Subconjunctival hemorrhages, transient loss of vision, or strabismus may be the effects upon the eye. The membrana tympani may be ruptured and blood may gush from the ears. In the blood a high leukocytosis appears early and precedes the whoop.

The Treatment of Trachoma by X-Ray Tube Exposure and by the High Frequency Current.

Stephenson and Walsh (*Medical Press and Circular*) believes that, though surgical measures have so far afforded the best results, inasmuch as they materially shorten the course of the disease and in that way prevent the likelihood of such troublesome and serious complications as pannus, ulcers of the cornea, and trichiasis, this condition seems likely to be entirely changed by the introduction of two powerful remedial agencies, to-wit, the x-ray tube and the "high frequency" electric current.

Of four cases of trachoma treated with the focus tube the eyes appeared to be cured in two, while such considerable improvement took place in the other cases as to promise an equally favorable result with the continuance of the treatment. On several occasions slight, superficial dermatitis of the lids was noted, and in one case it amounted to a blister. The face was also similarly affected once or twice. A moderate dermatitis also occurred on the fingers and back of hand of the nurse who held the lids everted during one of the short distance exposures. A shield and mask of lead prevented any further mischief so far as hands and face were concerned.

The rapidity of the curative action is noteworthy. Every case showed a definite improvement from the first exposure. The immediate effect of the focus tube was to render the granular bodies redder and more prominent. That appearance was followed by a stage during which rapid absorption of the granulations presumably took place.

New Method of Intestinal Union.

Horsley (*Annals of Surgery*, Nov., 1903) describes his operation as follows: Intestinal clamps are placed, the mesentery is incised, and if need be, resected. The forceps that clamp the vessels are also made to include both layers of peritoneum as they separate from the mesentery to encircle the bowels. The tissue within the bite of the forceps is ligated with fine silk so covering the bowel, which is usually devoid of peritoneum. The bowel is then divided and the convex borders placed in contact and held there with forceps. Both walls of the intestines are now transfixed with No. 2 braided silk, about half way between the mesenteric insertion and the forceps. This is tied. Part of the intestinal walls forming a crescentic area, the center of which is held by the forceps, is now cut out, and the cut edges sutured through and through. The needle is then thrust directly through the intestinal wall close to the right of its last puncture and emerges from the serosa. The character of the stitch is now changed to a Cushing right angle continuous suture, penetrating all coats and inverting the margins. Firm traction is maintained on the thread. When the first knot is reached it is invaginated and the suture continued by two more insertions of the needle. After this suturing is completed, scarcely any of the thread can be seen. The mesentery is then sewed up with a continuous suture. Nineteen dogs were operated upon by this method without a death. Evans has demonstrated that the danger from stricture following intestinal resection is overrated. Owing to the excision of the crescentic area, the diameter of the intestine at the point of union is greater than its normal size. He believes the continuous suture is by all odds preferable to the interupted. The operation can be done in eight minutes. The results of hydrostatic pressure on the unions obtained by this stitch, show that a suture through all coats is stronger during the first six days than one including the submucosa only. The Connell method stands more pressure at the end of the first and the sixth day, the new method stands as much as the Connell during the critical time of intestinal union, which is the third and fourth days.

Syphilitic Affections of the Skin and Osseous System in the Newborn.

W. R. Wilson (*Am. Jour. Med. Sci.*, March, 1904) mentions the variations in severity of syphilitic infection. Abortion usually results if conception occurs during the early period of transmissible syphilis. The child may not be syphilitic if the disease be in its tertiary period. Congenital syphilis in the newborn gives rise to blebs and excoriations resembling a macerated stillborn. The bony thorax is not expanded and craniotabes is present. The liver and spleen are usually enlarged. Such are the manifestations in a premature syphilitic baby. When the symptoms arise after birth, instead of in utero, the term hereditary

syphilis is applied. It is manifested by snuffles, hoarse cry, pendulous abdomen, large spleen and large liver, and the syphilides. Should the symptoms be deferred, the child appears normal or senile, having a loose flabby skin of a yellowish hue.

Gaston holds the pemphigus of newborn to be pathognomonic for syphilis. It may be present when born or may arise toward the end of the first week. Its appearance may be that of a slightly elevated reddish patch with a faint hyperemic zone. The content is bloody and changes to a greenish yellow. If broken an ulcerated patch is left. The blebs are usually the diameter of a pea, may be larger. Another is the more commonly observed form, being a pustular eruption from the start, which is met most often on the buttocks and genitals. If the palms and soles are involved, the vesicular type of eruption is seen here.

Papular eruptions with erosion of their summit are met in places naturally moist, as in axillae, crural folds, umbilicus, etc. The papules are small, yellowish-gray color, with eroded diptheritic surface.

Erythema is a very frequent lesion, beginning about the nates and genitalia, and may be anywhere on the body. Papules arise from the infiltration process usually present. The copper color is to be observed in the eruption remaining after the erythema has subsided. Macular and squamous involvement of the palms and soles.

Boil-like lesions as well as tuberculous ones are met occasionally along with the more typical eruptions. Fissures of lips are a frequent lesion, while similar conditions may be seen in region of arms and the fourchette.

Coryza may be the first sign of the inherited syphilis, the discharge being thin at first, becoming purulent. The skin is irritated very much by it.

The pharynt and larynx mucosae are often reddened and swollen.

Mucous patches may be present on the hard palate, gums or buccal mucosa.

The bony system shows involvement of the long bones, usually at the epiphyseal line. Here is met the syphilitic osteochondritis. The process may be so extensive as to cause separation of the parts of the bone. Pseudo-paralysis results from the bone involvement. When the phalanges are involved, the periosteum and fibrous tissue surrounding it is the seat of disturbance.

On the Late Effects of Typhoid Fever on the Heart and Blood Vessels.

Thayer (*American Journal of the Medical Sciences,* March, 1904) makes the following statements:

A study of the condition of the heart and blood-vessels in 183 individuals who have passed through typhoid fever at the Johns Hopkins Hospital within the last thirteen years has revealed the following facts:

1. The average systolic blood-pressure in these old typhoids was appreciably higher than in control observations upon healthy individuals.

2. The higher average blood-pressure was constant in every decade.

3. In many instances among the old typhoids the blood-pressure exceeded appreciably the limits of what is usually regarded as normal.

4. The radial arteries of the old typhoids were palpalable on a portion nearly three times as great as that found in control observations upon supposedly healthy persons who had never had the disease.

5. The average size of the heart was greater among the old typhoids than in the same cases at the time of admission to the hospital. The difference held good also when the cases were classed according to the age by decades.

6. Cardiac murmurs were heard with considerably greater frequency among the old typhoids than in the same cases during the attacks.

7. In eight cases where, on discharge from the hospital, the heart was considered normal, subsequent examination revealed hypertrophy with mitral insufficiency; one a striking general arterio-sclerosis, with hyper-tension

8. In one case an aortic diastolic murmur was present four months after discharge, but had disappeared five months later.

9. Those patients whose pulse during the disease had been markedly rapid or irregular showed, in general, on later examination a blood-pressure above the common average for the old typhoids. In other respects, however, their condition differed but little from the general run of cases.

10. Those cases in which a systolic murmur at the apex of the heart was observed during the attack showed later an increase in the blood-pressure and in the size of the heart as compared both with the mean of the observations made upon the same cases upon admission to the hospital and with the general average for the old typhoids. Nearly one-quarter of those cases in which, during the attack, systolic apical murmurs were detected showed, on later examination, evidences of organic heart disease. Indeed, the majority of all the cases of organic cardiac lesions among the 183 old typhoids came from this small group of 31 cases

Recent Advances in the Study of Heart Conditions.

Fitch (*Medical Times*, March, 1904) considers the causes of sudden death in heart and arterial disease. In 75 per cent. out of 852 cases, excluding violence, the fatal result was due to chronic endarteritis or its sequences. Of these, 71 per cent. were ascribed to cardiac paralysis; 2.4 per cent rupture of the heart; 11.2 per cent. rupture of the aorta, ruptured aneurism, etc.; 13.3 per cent. intra-cranial hemorrrhage. Paralysis of the heart is most commonly seen in adult males, and during the winter months. Social position appears to be without influence. Fatty degenerations is the exception rather than the rule.

He discusses the relation of pulmonary disease to the work thrown on the right heart. In pneumonia the brunt of the affection falls on the right ventricle, and in the treatment of this disease the practitioner must conserve the efficiency of that cavity. The radial pulse gives little or no information concerning the state of engorgement of the pulmonary circulation, but by listening to the second pulmonary sound the tension of the pulmonary blood pressure and the strength of the right ventricular contraction can be determined. An accentuated, clear, ringing pulmonary sound can be heard in the early stages in pneumonia. A diminution in the loudness of this sound indicates one or two things, either a relief of obstruction, which is a favorable symptom, or a failure on the part of the right ventricle to overcome the obstruction, which, of course, is unfavorable. In the latter case there is an increase in the area of the heart's dullness to the right, and a feeble radial pulse, and unless the embarrassed pulmonary circulation is speedily relieved death follows.

Much of the treatment is prophylactic. It is a mistake to overburden the heart by allowing the patient too much food. The over-distention of the stomach, the increased work entailed in digesting the food, and the loading the blood with an excess of nutritive material disturbs the cardiac action. Alcohol by reason of its ready assimilability, its stimulating properties, its vaso-dilating action and its sedative effect on the nervous system is strongly indicated, both as food and medicine. When dilatation has set in venesection may be good, but "bleeding a patient into his own vessels" is just as efficacious and less depressing. For this purpose arterial relaxants are employed, of which nitroglycerine and sodium nitrate are the most reliable. The author has had excellent results with nitroglycerine. Digitalis is contraindicated because it raises the blood pressure and thereby throws more work on the heart. Oxygen has a beneficial action, in that it overcomes the defective oxygenation, which aggravates the conjestion of the lungs. When the breathing becomes labored, artificial respiration should be resorted to in an endeavor to relieve the patient of the muscular effort necessary to carry on the respiratory movements.

Motor Symptoms in Mania and Melancholia

W. H. B. Stoddart, in the *London Medical Lancet*, March 5, mentions the occurrence in melancholia of paralysis and rigidity of the muscles of the spinal column and of the large proximal joints, the movements of the smaller and distal joints being comparatively unimpaired. The symptoms referred to are not always easily appreciable, as in mild cases they are scarely noticeable. The movements of mania, on the other hand, take place during motor excitement, mostly at the large proximal joints. The trunk sways as the patient walks, and during running there is exaggerated movement of the hips. In the waving of arms, so frequent in mania, the greatest movement takes place at the shoulders and there is little at the wrist and fingers.

In conclusion, he says (1) that in mania an irritating product is formed within the cortical neurons; (2) that in melancholia a paralyzing product is then formed; (3) that in agitated melancholia there is a combination of deleterious substances, viz., a paralyzing product with the cortical neurons and also an irritating body in the plasma which bathes the nerve cell, and (4) that in a few cases of mania there is in addition to the irritating body within the nerve cell an irritating body in the plasma which bathes the nerve cell. Most of the delusions of the melancholiac arise from his feeling of inactivity due to the stimulation of his cortical centers. Hence arises the general idea of power, grandeur, etc., but the development of this kind of delusions is often disturbed by the occurrence of hallucinations, so that the feeling of activity is thrown into the background by the perversion of these senses.

Deceptive Abdominal Signs.

A. H. Tubby (*British Medical Journal*, February 13, 1904) says that it must still be admitted that the only method of positively settling the diagnosis is to make an exploratory incision; but this is only another formula for acknowledging defeat. It at once takes the case out of the realm of science and places its treatment simply among the lower arts. Some of the condi-

toins which render a diagnosis of the utmost difficulty are as follows:

In many abdominal lesions the symptoms for a time are absolutely latent, only becoming recognizable when they are of such severity as to make intervention hopeless. On the other hand, certain cases which commence acutely, subside and apparently are progressing favorably, when of a sudden they break out with increased virulence and end fatally, the latent period havutterly deceived the clinician. Again, when the general symptoms of suppuration are present, it sometimes impossible to say with which organ it is connected, and no data are present upon which to commence exploratory investigation. There are certain symptoms which cannot be too frequently brought before the observation of all practicing physicians. In the order of their importance they are as follows:

1. The ratio of the pulse to the temperature. If these are proportionate the outlook is favorable, but a rise of pulse with a fall of temperature is a condition of the utmost gravity.

2. Leucocytosis. Although this sign is of the very greatest importance, it is not absolutely to be relied upon by any means, for the greatest and most acute forms of poisoning are not attended with any elevation. The ratio of polymorphonuclear cells is important. If these are increased from the normal rate of 65 per cent. to from 70 to 75 per cent., pus formation is certainly present.

3. Rigidity. This even in the absence of other abdominal signs, is of the utmost value.

4. Vomiting. This is a variable sign, although most acute abdominal conditions commence with it. It is often absent in the latent period. It if recurs after the stomach has been emptied, it becomes of important significance.

5. Distention. This is not a characteristic sign of the early stages and may be absent even in intestinal perforation. In later stages its vital significance is well known. If it persists longer than twenty-four hours, it is of grave moment.

6. Constipation and diarrhœa. The former may be due to obstruction or to sedatives, but the latter is often indicative of septic absorption from a closed abscess.

7. Local tenderness.

8. Hematemesis and melena.

9. Increasing abdominal dullness. This, after a serious injury, is indicative of hemorrhagic effusion.

Hot and Cold Water in Eye Diseases.

Nance (*Medical Standard*) summarizes the main points in the consideration of this subject:

with signs of a general venous congestion

1. Heat and cold are best applied to the eye by moist pads. They are more efficacious when employed in this manner than by means of the coil or bladder, in that their action is more penetrating, and their effect is more germicidal.

2. The application of heat is indicated in degenerated corneal processes—intestitial and phlycetenular keratitis, corneal ulcers, pannus, infected corneal wounds, hyphemia, hypopyon, suppurative panophthalmitis, in iritis and cyclitis, in muscular spasm, and in contusion and ecchymosis of the eyelids ("black eye")—to hasten absorption of extravasated blood.

3. The applications should be of the highest temperature the patient can endure, viz., 110 degrees to 135 degrees F.

4. They should be employed for a period of fifteen minutes, and repeated at intervals of two or three hours, for many hours.

5. Cold is indicated in hyperemia and inflammation of the conjunctiva. In purulent cojunctivitis it is the remedy *par excellence*. In traumatisms, especially those of the iris and lense, and in the early treatment of contusions of the lids, its employment is of value.

6. In purulent conjunctivitis iced applications may be continuously used for many hours as long as the cornea remains unimpaired, in which insatnce, they are positively contraindicated.

7. Hot applications greatly assist the rapid absorption of various medicaments employed opthalmic practice, and when used for this purpose should immediately precede the instillation of such solutions.

The Physiology of Bitters.

According to the *British Medical Journal*, the custom of taking bitter appetizers immediately before the heavy meals of the day is widespread both in this country and abroad, the object being, of course, to stimulate the secretion of gastric juice. Latterly it has been suggested that it would be more physiological to make use of a small quantity of alkali instead, as that is known to exercise a favorable influence upon peptic secretion. The chief objections to the use of bitters have been based on researches by Tchelsov, who found that the administration of large doses of quassia hindered rather than helped the digestive process. Reichmann, moreover, showed that in the fasting stomach the secretory activity of which is normal or diminished,

a bitter drink produced less secretion of gastric juice than a draught of distilled water. These experiments take account solely of the specific action of the bitters and do not regard their reflex effects. These have been articularly studied by Borrisov, whose results are analyzed in a recent number of *La Semaine Medicale*. He made use of Pawlow's method of sham feeding in a dog in which esophagostomy had been performed and a gastric fistula also established. The bitter substances, therefore, did not pass into the stomach, and the reflex effect of their presence in the mouth could be accurately judged. Borissov found that if a little wad of wool soaked in tincture of gentian was put into the mouth immediately before food was administered, a marked stimulant effect upon gastric secretion resulted; but if the bitter was used fifteen to thirty minutes before the meal, it was quite inefficacious. It is concluded, therefore, that these substances have the power of rendering gustatory sensations more acute and of exercising a temporary stimulant effect upon gastric secretion; for this purpose they should be given immediately before the meal in small doses and in the form of tincture (10 to 20 drops) rather than caharta or pills. We may remark on this subject that the habit is obviously susceptible of abuse, particularly when, as is usually the case, some strong alcoholic liquor is used as the vehicle of the bitter. As a matter of fact, such a stimulant action is the real function which is intended to be subserved by the soup which is taken at the beginning of the meal. There is a tendency—even outside the city of London—to consume this in somewhat large quantities; in such cases it tends to be harmful rather than conducive to digestion; but there can be no doubt, on the other hand, that the use of a tablespoonful or two of a hot and sapid fluid at the beginning of a meal is an excellent means of giving the stomach a fair start in the performance of its functions.

Opium in the Carditis of Children.

Alexander Morrison (*Edin. Med. Jour.*) points out the abundant nerve supply of the heart, and the important part this plays in causing cardiac unrest when stimulated by an interstitial myocarditis. Also the efficacy of those measures found to be most beneficial in the treatment of carditis points the same way, as does the inutility of agents found of much use in non-inflammatory cardiac failure. Thus we know that it is doubtful if salicylates are an antidote to the rheumatic poison, but no other agent so readily relieves the pain and also the irritability of the heart. Locally applied, ice can also affect the heart only through the nervous system. The relief of pain by local blood-letting also can only act by relieving the irritation of the nervous structures, for the amount of blood withdrawn can have little effect on the general circulation. But useful as leeching and the application ice may prove in the case of adults and some children, the emotional excitement induced in many children renders their employment undesirable. The opposite method of treatment by muscular and nerve stimulants, such as digitalis and strychnine, has been found of little use and even harmful. Rest of mind and the avoidance of emotional excitement and the employment of calmative agencies is the most rational and beneficial treatment.

Among such calmative agencies there is none more powerful than opium when used with due care in children. The fear of the susceptibility of children to opium has interfered with its proper use. Cheadle records a case of a boy of twelve with mitral disease, adherent pericardium, and engorged lungs, who was rapidly relieved by ten drops of nepenthe every few hours. Small doses of morphia given hypodermically may be well borne in children. Morison reports an illustrative case of mitral disease and pericarditis in a child of five and a half, in which frequent injections of morphia caused relief, although the child died. The injections were begun with 1-16 grain every four hours. Morison concludes that this treatment is directed against effects, not a primary cause; and although it may not directly affect the course of an inflammation, it may yet maintain life until the conflagration has burned itself out, or the protective processes of the body eliminated the intruding cause of the disease.

Dietatic Factor in Spa Treatment.

Moillot, in the *Journal of Balneology and Climatology*, discusses the dieting of those closely related maladies, gout, obesity, and glycosuria. As he points out, the link connecting these maladies is faulty metabolism, which is probably due to defective action of the liver or other gland which has important duties to perform with assimilation and elimination. The diseases are specially common at spas. As regards gout, he makes three classes: (1) Those subject to more or less frequent acute attacks; (2) those who have never had an acute attack, but whose digestion is weak, and who suffer more or less severely on the commission of any dietetic error; even when dieting carefully, too, the patients are not free from symptoms of "lithæmia;" (3) those who

remain in good health unless they eat or drink certain articles; these patients are often aggrieved because they cannot live as other people. The ancestors of Classes 2 and 3 will usually be found to have suffaction of uric acid in gout. It is not a matter large numbers of people (recorded in Class 2) have been suffering an acute attack of gout, and he infers that something more than metabolism is necessary in order that an attack may occur. We entirely agree with the author in his views concerning the action uric acid in gout. It is not a matter of importance that the food of the patient should be free from uric acid, but the really essential point is to ascertain whether it has any injurious action upon the phenomenon of conversion of food into living tissue. Hence diet should be considered less from the point of its relation to uric acid than to its action upon the chemistry of digestion.

The dieting of gout should be as simple as possible, and especial notice should be taken to avoid the mixing together of different varieties of food at one and the same meal. We endorse the author's recommendation of an animal diet rather than of a vegetable diet in gouty subjects. In those cases in which gout is the result of defective elimination there can be no doubt at all that animal food is far more beneficial to the patient than is a vegetable dietary. Starchy food in such cases is most difficult of digestion, and tends to the production of acid dyspepsia and flatulence. When the kidneys are seriously affected, the case may require different treatment and a reduction in the proteid element of the food, but even here, unless the urine is of low specific gravity, pale and deficient in urea, there is no necessity to limit the quantity of meat. The author recommends in gout, obesity, and glycosuria a diet essentially consisting of meat, fish, poultry, green vegetables and fruit. The latter should never be taken at meal times. In very severe cases animal food should alone be given, and only later should green vegetables and fruit be allowed. Patients resent the absence of bread in the dietary; only toast should be permitted. Alcohol is best dispensed with; if any is allowed it should be in the form of whisky, still moselle, or cider. Champagne is most injurious. Little fluid should be allowed at meal times, but the patients taking this diet must have at least three tumblerfulls of pure water per diem. The author strongly disapproves of the strict limitation of the quantity of water taken in obesity. The author thinks that much harm is done in this affection in the needless restriction of fluid. The author does not consider that the diet, if arranged on the lines just denoted, requires any special modification during the time the patient is at the spa. In dieting an individual case the chief points to be considered are the weight and severity of the disease. The more severe the malady the stricter should be the diet, and the heavier the patient the better he bears these restrictions. The only meat forbidden is pork, and the only fish, lobster and salmon. Tea and coffee may be allowed. Bananas are prohibited by the author, but not apples and oranges.

Achilles-Tap and Front-Tap.

Walton and Paul (*Journal of Nervous and Mental Diseases*) has the following to say of the Achilles-jerk and front-tap:

The front-tap is elicited, with the patient's foot on the knee of the examiner and the foot dorsally flexed, by smartly tapping the Tibialis anticus with a rubber hammer; and the Achilles-jerk by tapping this tendon with the patient kneeling on a chair.

1. The Achilles-jerk is practically as constant in health as the knee-jerk. This reflex varies less in health than the knee-jerk in excursion and activity, and is the most easily elicited and uniform of all tendon reflexes.

2. The Achilles-jerk diappears, as a rule, early in tabes dorsalis, and its absence is as diagnostic of that disease as is the loss of the knee-jerk. We have not seen a case far enough advanced to establish tabes with persistence of the Achilles-jerk, except in one case in which both the knee-jerk and the Achilles-jerk were present on one side only. We have observed bilateral preservation of the knee-jerk and loss of Achilles-jerk in two out of five cases of tabes.

3. Enfeeblement of knee-jerk in health, on one side or both, may be due to prior toxic influence, as diphtheria. This may also be true of the Achilles-jerk. Further observations on this point are desirable.

4. The front-tap is present (generally on both sides) in about forty per cent. of individuals in ordinary health; in some it is very active. It follows that its presence alone, even if active, does not establish disease, nor indicate excessive irritability of the nervous system.

5. In organic disease the front-tap is generally increased with the other reflexes in hypertonic, and decreased (generally wanting) in hypotonic states.

6. In the so-called functional disorders, hysteria, neurasthenia, and unclassified psychoses, we have found the front-tap present in 71 per cent. In epilepsy we have found it present in 75 per cent. of cases. The test may, therefore, here prove of aid in combinations with other findings, though

its mere presence, or even activity, is not of positive diagnostic value; nor does its absence negative the existence of neurophatic conditions.

7. Both these reflexes deserve to be placed upon the list of routine tests for purposes of diagnosis. This is particularly true of the Achilles reflex, which is of the greater positive diagnostic value.

A Case of Acute Lymphatic Leukaemia, with Numerous Subcutaneous Lymphocytic Nodules.

Stevens (*Glasgow Medical Journal*) reports the case of a young man of nineteen, who was admitted to the hospital on January 16,1903, complaining of having been weak and ill for a month. The illness commenced about two months before admission, with an attack of diorrhœa, which lasted about a week. After this, on account of not being able to get work, he lived badly, sleeping out, and being exposed to the weather. His previous health had always been good. The patient was inclined to fullness, but was flabby, with a pasty, pallid complexion. The pulse was 100 of very low tension; the respiration was 18; and the temperature about 100 degrees. He was very deaf. The gums were soft and spongy, with blood clots adhering to them here and there. A number of shotty nodules were detected in the skin in different regions of the body; they were of a blue color. The heart sounds were feeble, but there was no murmur, except over the pulmonic area, where a soft systolic bruit was audible. In the first urine passed blood-clot was present. Subseqqently no blood was found, but a trace of albumin was present. The blood showed a deficiency of fibrin formation, as it flowed very easily, and pressure was required to stop the flow. The white cells were found to almost equal in number the red corpuscles, including fibrins. There was only 15 per cent. hæmoglobin. The spleen could not be felt, and the liver was not enlarged. The patient rapidly became worse, and died on January 23, 1903. On post-mortem examination, it was found that the lymphatic glands of the neck and axillæ were enlarged; on cutting into them, the section was of a greenish gray color, but there was no caseation. Over the front of the body there were several subcutaneous nodules, which were freely movable beneath the skin, and which, when met with, were of a greenish gray color, and of the consistency of lymphatic gland tissue. The bone-marrow had the same greenish tinge as was observed in the subcutaneous nodules and the lymphatic glands. The blood-clot found in the heart was also of a greenish hue. All the classical evidence of leucocythæmia were present in this case, and there can be no question as to the correctness of the diagnosis. The microscopical examination of the nodules conclusively showed that they were neoplasms, and there can be no doubt that the morbid condition of the blood, that of the bone-marrow and different glands, together with the tendency to new subcutaneous growths, were all part and parcel of a general malady to which the term "chloroma" may appropriately be applied.

Madstone Humbuggery.

We take the following from the *Central States Medical Magazine*. It expresses our opinion exactly, and it gives us pleasure to reproduce it. The editor says:

"It may seem inappropriate to call attention to the therapeutic humbuggery of the madstone, from the fact that to believe any physician guilty of assigning to it a value as a method of cure would be questioning such a person's intelligence.

We fully appreciate that this century is one of notable achievements in science, wondrous results obtained by electricity and new chemical products; the rapid strides made in medicine and surgery, and yet, with all the knowledge that has been obtained by the study of hydrophobia, still a large number of the laity have full confidence in the efficacy of the madstone. With the knowledge of disease possessed by the average citizen, it is strange that the unreasonableness of a curative action is not recognized.

"The madstone cannot be assigned to a place either in geology or mineralology, that is to say, a stable position. Its composition is not definite, and it may possibly be found upon any beach or in any gravel pit and the supply is always equal to the demand. If it be found in the stomach of an animal, as some have suggested, perhaps the hair ball will answer the purpose; possibly a piece of Silurian coral, as suggested to the writer by the well known geologist, the late Dr. John Collett. Whatever the material may chance to be, its construction must be such that its cells may permit the exclusion of air; but more important than all whether it is found in the Gulf of Mexico, the Saharah Dessert or Broad Ripple it must have an authentic history of performing miraculous cures. Preadventure its application to a wound may produce sepsis, but its owner is not a surgeon, and the question of responsibility is of no consideration.

"That such ideas prevailed during the days when superstition was a ruling power and the supreme horror of witch-craft held

full sway, would not be surprising, but to harbor such a belief in this age is discreditable to any community in the midst of churches and educational institutions.

"In response to an inquiry, W. S. Blachley, Indiana State Geologist, in a letter to the writer says:

" 'Neither geologists nor minerologists recognize any such stone as the madstone.' It is not mentioned in the literature belonging to those two sciences. The so-called madstones are usually pieces of porous bone. It is said some of them have been found in the stomachs of deer.

"The Century dictionary defines the term as follows: 'A stone popularly reputed to cure hydrophobia or to prevent it when threatened. It is applied to the wound, from which it is supposed to draw the poison. The belief in its value has not scientific sanction.' It also states that in Pennsylvania the madstones are pebbles of various sizes, which appear to have been selected on account of some peculiarity of color or form. One specimen which had a high reputation was a worn piece of white feldspar, and possessed none of the properties of absorption attributed to it.

"Personally I take no stock in the properties of the so-called madstones.

"An editorial in the *American Medicine*, February 20, 1904, upon Therapeutic Stones, makes the following reference to the madstone:

" 'There are even now many of these precious talismans in this country; and 'the believers in their efficacy always know where the nearest one is kept.' One of them had been the property of an Ohio negro, and was placed after the death of the owner in the State Library at Columbus. There it was recently applied to the wound caused by the bite of a supposedly rabid dog. The dog recovered, and the woman to whom it was applied died of blood poisoning caused by the unclean contact. We are also informed that such a stone was kept in the Virginia State Penitentiary for years and was open to all comers for application to the bite of a maddog, or other allied wound. One such (perhaps the same) was at a later date sold by auction for $39. Still more famous was that brought from Russia in 1887, by a physician of that country, who settled in Nevada. It had previously been exploited in that country for at least a century and a half, a fact supported by documentary evidence. The document was written in native Russian and as nobody concerned could read it, everybody implicitly believed what they were told of it. The owner offered the stone for sale at $1,000, and a joint stock company was formed for the purchase. A thousand share holders advanced $1 each, and the balance was made up by a farmer who became its keeper, when the purchase was completed. Its fame still flourishes and it is said that an offer of $3,000 has been refused for it. Such is faith in our own land of progressive enlightenment. Can we besurprised that Eddyism, antivivisectionism, antispectacleism, and all other isms, still continue to flourish in so fertile a soil?"

Distribution of Diphtheria Bacillus in the Throats of Contacts and Normal Persons.

S. G. Smith in the *Journal of Hygine*, says that diphtheria bacilli have been found in a considerable proportion of persons who have come in contact with cases of diphtheria or with infected persons.

Such persons have been shown to be a grave danger to public health, especially when frequenting schools or institutions, and to constitute the usual channel by which the disease is spread.

Very satisfactory results have followed on the isolation of convalescents from the disease and of infected "contacts," where two or more consecutive negative examinations have been required before release.

Carefully conducted investigations amongst healthy persons who have not at a recent date been in contact with diphtheria cases or infected "contacts" have shown that virulent diphtheria bacilli are very seldom present in the mouths of the normal population. This fact renders the discovery and isolatiaon of infected persons a practicable possibility, and offers a fair prospect of discovering and isolating the majority of them in any outbreak.

Diphtheria baccilli are usually distinguishable on morphological and cultural grounds, but whenever possible it is desirable that their virulence should be tested.

The bacillus of Hoffman is inocuous to man and is a very common organism in the mouths of the poorer classes. The distribution of this bacillus points to the conclusion that it is carried from mouth to mouth in the same way as the diphtheria bacillus, and therefore its wide prevalence in schools attended by poorer children is significant as showing how widely spread and uncontrollable an outbreak of diphtheria may become unless measures are early taken to deal with infected contacts.

Intestinal Perforation During Typhoid.

Briggs, (*American Journal of Medical Sciences*) believes the number of cases of typhoid fever in the United States is about 500,000 per year, and that the death rate is about 50,000. About one-third of all deaths

are due to perforation, that is to say, nearly 17,000 typhoid fever subjects die of perforation every year. He says that between 5,000 and 8,000 cases could annually be saved by operation. When perforation is suspected, tub baths should be discontinued, because the condition of the patient during and after them may obscure the symptoms. Briggs does not believe that the preperforative stage is a definitely recognizable condition. The treatment is always operative. The time at which operation should be performed, however, is a matter of much dispute. Curiously enough, statistics indicate that the largest number of recoveries occur in those subjects operated on during the second twelve hours after the perforation. General anæsthesia is desirable. The technics should be as simple as possible; perforation should be sought for at once, starting at the sæcum and traveling along the ileum. After the perforation is closed, if the condition of the patient permits, search should be made for other ulcers in a dangerous condition, and finally, the abdomen should be thoroughly irrigated with large quantities of water. Exploratory operations in cases of threatened perforation appear to be justified. Secondary operations may sometimes be done. There is reason to believe that the rate of recovery may in time approach 30 per cent. or even 50 per cent.

The Management and Prophylaxis of Intestinal Diseases in Infants During the Summer.

Kerley, in the *N. Y. Med. Jour.*, states that the most important measure in the management of summer diarrhea is a change in the diet, that change being a substitution of a carbohydrate, in the nature of a cereal gruel, for the milk food. The mothers of dispensary babies are taught to discontinue milk at the first symptom of gastroenteritis, to give a dose of castor oil and a barley-water diet until they can bring the child to the hospital. As a substitute for milk, after repeated and undesirable experience with egg albumen, beef juice, animal broths and wine peptone, the carbohydrates are found the most satisfactory diet. Barley, rice, gruel, plain or dextrinized, when flavored with salt or sugar or possibly with beef products ,are the best obtainable milk substitutes. Half an ounce of the cereal to the pint of water is the usual strength. There are a few drugs which possess considerable worth in this condition. Calomel in small frequently repeated doses if there is a tendency to vomit. Castor oil in 2 dr. doses is preferable for its prompt effect. Bismuth subnitrate in 10 to 20 grs. every hour is of value. In order to be of service it must be converted into bismuth sulphide in the intestines, forming black stools. When this does not occur, it will be of no service, and sulphur in 1 gr. doses must be given with it. Opium is used when there is tenesmus and straining, which usually means small, frequent stools. It is also of use when there are many large watery stools. Dover's powder in ¼ to ½ gr. doses should be given every 2 hours to a child from 6 to 18 months of age. Irrigation of the colon is indicated in cases with high temperature and an inactive bowel. Normal salt solution as cold as 70 degrees F. in the high fever cases, and as hot as 110 degrees F. in those with low temperature and extreme prostration, produces good results. For fever, sponging with equal parts of alcohol and water at 80 degrees F. is a better method than using packs. In very acute severe cases, with frequent vomiting, many large watery stools, and marked prostration, morphin hypodermically, 1-30 to 1-60 gr., guarded by atropin, reduces shock. The only measures of value in vomiting are diet, stomach washing, gavage, or forced feeding. To remedy the prevalence of gastroenteritis, pure milk should be available at the lowest cost, furnished preferably by the city. A district visiting physician and nurse should be appointed, and the first sign of gastrointestinal trouble be observed. The race suicide and reduced birth-rate might be greatly lessened if the State and municipality exercised authority or showed sufficient interest to supply life-saving methods which private individuals have proved possible.

Miscellaneous.

Letter from Dr. Upshur.

RICHMOND, Va., March 14, 1904.

It has just come to our notice that one J. Sills Daniels, M. D., of this city, the proprietor of a so-called Cancer-cure Sanitarium, and Sanitarium for the treatment of diseases of women, especially obstetric cases, an asylum for the *unfortunate*, etc., who also offers a diploma as a member of the Hospital Staff, for a *consideration to any physician desiring it*, has without *our knowlekge or authority, announced us as Consulting Physicians of the said Sanitarium.* We desire to stamp such a statement as a piece of *unwarranted impertinence*, and *absolutely without any foundation in truth.*

Signed: J. U. UPSHUR, M. D.
JACOB MICHAUX, M. D.
LANDON B. EDWARDS, M. D.
RAMON D. GARCIN, M. D.
B. L. TALIAFERRO, M. D.

Independent Journalism.

The future progress of medicine lies entirely in the hands of the independent medical journals. The signs of the times indicate that there is a movement on foot to perfect an organization which is intended to give exclusive control of this great body to a few men. All progress, as the world well knows, always has been and always will be made by the independent man, the independent thinker. The independent medical journals give each man a chance to have his say, and to hear what others think.

The rule of mechanism is universally bad. Policy and expediency are the principal considerations. Everything is done to strengthen the party in power. The governed have practically no say in things that most intimately concern them.

You say: How can a few govern a majority? But they *do*. That reminds us of the fellow who was put in jail, and sent for a lawyer. The lawyer came, and told him they could not put him in jail on any such charge. But, says the man, "I *am* in jail."

We must look at facts. Give a machine control, and it is all the time planning and scheming to strengthen itself. The great body of physicians, occupied with their daily affairs, do not have the time or the means to fight these encroachments. If it were not for the independent medical journals the doctor would soon find his hands tied. He would have to look out for his own rights, then, and the individual can accomplish little without some medium to air his views.

In every department of life the independent worker and thinker should be encouraged, and the effort of machines to establish control, fought. There is trouble ahead whenever people want to legislate or think for you. Certain slavery, the subordination of your own rights and powers, is the alternative to individual, independent action.

One of the first moves of the little handful of men who are trying to organize and dominate the medical profession has been to jump on the Medical Brief, which is the most ethical, progressive, scientific and fairest journal in the world. The Brief has been selected for these attacks, because of its enormous circulation and great influence. Any fight on the Medical Brief is a fight on all independent journalism.

Consult the signs of the times. While there is yet peace, prepare for war. Those who love liberty and the fruits thereof, must stand ready to fight for them when need be. Encourage individual enterprise everywhere. That is the American idea. We have seen the evils of trusts and unions—imported from Europe, where the conditions are utterly different. Compulsion is their sole method of doing business. Letting others think for us is to be steadfastly combated in every department of life.

When a journal says it belongs to and is run by the profession, look out. The profession is attending to its business, and so is the journal's management. The honest, independent journal tries to serve the profession practically for business, because it has trouble enough of its own. But the medico-political journal is operated on medieval principles.

It is always seeking alignment with the State. It is always trying to secure rigid laws, and a machine organization that will put arbitrary, irrisponsible power in its hands.

What right has the State to enter into the manufacture of antitoxin, any more than quinine or morphine, except that it creates new offices, calls for appropriations, and strengthens the machine.

Doctors should oppose the State manufacture of anything. The deadly antitoxin made by the city of St. Louis certainly demonstrates the inferiority of State products.

The independent medical journals will develop an unexpected strength in this fight on their existence. There are quite a number of good independent journals, which are generally popular, and blessed with healthy circulations. The profession should encourage independent journalism to the extent of its power. Take, not only the Brief, but as many good independent journals as you can. They are all practical and progressive. You will learn something from every one of them which will make you a better doctor. The great thing with the doctor is to pick up knowledge that will enable him to cure his patients, not necessarily in the "regular" way, the "ethical" way, the fad way, but any old way at all.

The Medical Brief has nothing to gain in writing this article, except to call the attention of the profession to the efforts made to hoodwink and delude it. Watch, and you will see the grand scheme unfold itself. —*Editorial from the Medical Brief, April, 1904.*

When the hepatic cells themselves become atrophic and lose their nerve tonicity, and refuse to respond to nature's mandate, of secreting bile, then we have a group of symptoms not unlike those of a diabetic, but

the results of which would be quite different.

In this condition we have found nothing that proves itself an ideal more than "chionanthus," and we have an ethical preparation, which you all know, that has proven itself a perfect God-send in this condition, and that product is "chionia." Before the hepatic cells become atrophic and hardened, there is a stage in which the liver becomes engorged, congested, hypertrophic, and in this condition we have hepatitis, an inflammation of the cells and connective tissue, and if this continue, then the liver breaks down, atrophies and hardens. Now, chionia does not act like any other laxative or hepatic stimulant, but instead of producing a severe catharsis, it works on the inflamed cellular tissue, bringing back the liver to its former physiological condition, allaying all inflammation, and gently stimulating the hepatic cells to perform their duty. And when we add nux vomica to this ideal hepatic stimulant, we have a tonic for the sluggish liver that cannot be equalled by any remedy.—*Extract from a paper entitled "Indigestion, an Etiological Factor in Diabetes," read before the Medical Association of South Carolina, by Dr. J. Will McCanless.*

Muscular Soreness and Rheumatism Due to Grip.

In speaking of the treatment of articular rheumatism, Hobart A. Hare, M. D., Professor of Therapeutics in the Jefferson Medical College and Editor of the Therapeutic Gazette says: "Any substance possessing strong antipyretic power must be of value under such circumstances." He further notes that the analgesic power of the coal-tar products "must exert a powerful influence for good." The lowering of the fever, no doubt, quiets the system and removes the delirium which accompanies the hyperpyrexia, while freedom from pain saves an immense amount of wear, and places the patient in a better condition for recovery. The researches of Guttmann show conclusively that these products possess a direct anti-rheumatic influence, and among those remedies, antikamnia stands pre-eminent as an analgesic and antipyretic. Hare, in the last edition of his Pratical Therapeutic says: "Salol renders the intestinal canal antiseptic." This is much needed in the treatment of rheumatism. In short, the value of salol in rheumatic conditions is so well understood and appreciated that further comment is unnecessary. The statements of Professors Hare and Guttmann are so well known and to the point and have been verified so often, that we are not surprised that the wide-awake manufacturers placed "Antikamnia and Salol Tablets" on the market. Each of these tablets contains two and one-half grains of antikamnia and two and one-half grains of salol. The proper proportion of the ingredients is evidenced by the popularity of the tablets in all rheumatic conditions and particularly in that condition of muscular soreness which accompanies and follows the grip. The Antikamnia Chemical Company, St. Louis, Mo., will send samples to physicians on application. Please mention this journal.

The Occurrence of Cells with Eosinophile Granulations and Their Relation to Nutrition.

(Opie.)—In concluding a very interesting article on the above subject, the author sums up by saying that in the tissues of the guinea pig, notably the mucosa of the gastrointestinal tract, and in the mucosa of their passages, in the lymphatic tissue, and in the spleen, occur eosinophile leukocytes which are identical with those present in the circulating blood, and like them are provided with polymorphous nucleii. In the bone marrow occur large mononuclear cells with eosinophile granulations. These cells of the bone marrow undergo mitotic division and form daughter cells, which resemble in size the eosinophile leukocyte of the blood, while the cells in which the nucleus presents varying irregularities in shape may be regarded as transitional forms. In the blood and various organs the eosinophile cells give no evidence of multiplication.

The myelocytes with neutrophile or amphophile granulations are analogous to the myelocytes with eosinophile granulations, resembling them in size and the character of their nucleii. Muir found that when the amphophile leukocytes in the blood of a rabbit undergo continued increase as the result of repeated bacterial infection, the myelocytes of the marrow are increased in number and mitotic division proceeds rapidly. An analogous phenomenon had been noted in those guinea pigs, of which the circulating blood contains a very large proportion of eosinophile leuckoytes. The number of eosinophilic cells is far greater than usual, while particularly abundant are the large eosinophile myelocytes. Mitotic division of these cells is observed much more readily than in the narrow of animals in which the blood contains few eosinophile leukocytes. In certain instances in which the eosinophile cells have accumulated in the tissues, it has been possible to demonstrate their abundance in the bloodvessels of a part, and in one case the process of migration was actually demonstrable in the hardened tissue. In apparently healthy guinea pigs eosinophile leukocytes have been shown to migrate from the bloodves-

sels into the wall of a small bronchus, and hence through the epithelium into the lumen. Eosinophile cells manufactured in the bone marrow reach the tissues by way of the bloodvessels.

The number of eosinophile cells in one cubic millimetre of blood is found to vary from day to day, and at intervals of 3074 days undergo an increase. It is not improbable that the number of eosinophile cells which the bone marrow discharges into the circulation is a matter of periodic variation. Complete withdrawal of food is followed by a decrease, both in the proportion and in the absolute number of eosinophile leukocytes in the peripheral circulation. Disturbance of nutrition acting, doubtless on the bone marrow affects the multiplication of the eosinophile cells more readily than that of the polynuclear leukocytes with fine granulation. Diminution in the number of eosinophile cells is preceded by a temporary increase, which may be explained by supposing that ripe eosinophile leukocytes already stored in the marrow reach the circulation, and are no longer directed to the intestinal mucosa. With the administration of food the eosinophile cells of the blood gradually increase in number, but neither the weight nor the eosinophile leukocytes increase continuously. That there exists a close relation between the nutrition of the animal and the eosinophile cells is shown by the fact that variations in weight and in the number of eosinophile cells take with much regularity opposite directions, so that a temporary fall in weight is accompanied by a rapid increase of the eosinophile leukocytes, while a rise in weight tends to retard this increase.—*The American Journal of the Medical Sciences*, February, 1904.

Constipation, always a lurking danger, is all the more prominent at this season of the year when the more or less confinement of the winter months has added to the sluggishness of the bowels.

To constipation with the backing up of the ptomaines and toxins in the system may be traced various symptoms, on account of which the laity at this time popularly suppose that they need a spring tonic. What they really need in most cases is the proper cleansing of the intestinal tract. Many drugs or combinations of drugs have been used to give the laxative or cathartic effect, but all are more or less harmful in cases of habitual constipation.

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Vulvovaginitis in Infants and Children.

Berkenheim (Dietskaia Medicina, No. 3, 1903) observed cases of vulvovaginitis in children in a Moscow hospital for ten years. He concludes that the etiology of this disease is the same in childhood as in adults. In seventy-five per cent of the cases there is

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gonorrheal infection. The reason why vulvovaginitis is so much milder in children seems clear: the vagina before puberty is short, there are few rugæ which might conceal and foster the infective matter, the vessels of the mucosa are ill-developed, and there are but few glands. Menstruation, pregnancy, and parturition, as well as coitus—factors prejudicial to the cure of vulvovaginitis are absent in most cases. Vulvovaginitis is most common in very little girls, often well nourished and in good health; its average duration under treatment is $7\frac{1}{3}$ weeks; one-third of all cases become chronic. All the well known local complications were observed in the Moscow hospital, and also conjunctivitis, peritonitis and arthritis. The cases of peritoneal inflammation were mild, as were those of ar-

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thritis, usually limited to one joint. Rest and general treatment are necessary. Berkenheim found that no medicament used for injections had any specific action: indeed, permanganate of potash, protargol, ichthyol, sulphate of zinc, and boracic acid were found by him to have no influence in shortening the course of the malady. A special basin and napkin must be reserved for each patient.—*Edinburgh Medical Journal.*

Treatment of Pulmonary Tuberculosis by Formaldehyde.

(Mathieu.)—There are three ways of administering this remedy in pulmonary tuberculosis. The first is by inhalation, and the second by intravenous injection, and the third by electricity. The inhalation method of treating the disease is old, but using this remedy in an atomizer or vaporizer, and by nose and mouth inhalation, is quite new. The inhaler is flexible and light, made of perforated zinc, and fits the chin perfectly. The writer recommends a 40-per-cent. solution of formalin, one part of chloroform, two parts of rectified spirits and a few drops of ammonia. The advantages of this method are, first, its simplicity, and the fact that the patient may use it indoors, outdoors and inhale no dust. He can readily use this medication himself. The inhaler must cover the nose and be continuously worn. The vaporizer consists of a spirit lamp with an open boiler, into the mouth of which is let a tray which carries paraform powder with a little menthol. The steam renders the action of the formaldehyde more penetrating and effective.

The writer has kept full records of 100 cases, and his conclusions are that these methods are an advantageous addition to the open-air treatment. The intravenous injection is begun by 50 c.c., of a strength 1 to 2000, increasing to 1 to 1000. The patient ofttimes complains of numbness of the hands, and there is a slight rise in fever. The objection, however, is that, owing to the non-vascular character of tuberculosis lesion, the remedy cannot reach the diseased tissues. If it can be shown that the formaldehyde has a general action on the septic condition, then must it be of some service.—*British Medical Journal*, Oct. 24, 1903.

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I prescribed Sanmetto in a case of hematuria with retention of urine. The patient had improved a great deal by the time another supply of Sanmetto reached me. I was obliged to withdraw the urine with a catheter for nearly a week, from three to four times in twenty-four hours, also had to wash out the bladder and use suction to withdraw the clots. Since using Sanmetto the urine passes again normally and the constituents are also nearly normal and the patient has fully recovered, with the exception of a small quantity of albumen. I shall prescribe Sanmetto in the future if cases for which it is indicated fall to my care for treatment. W. B. Erdman, M. D.

Macungie, Pa.

The Propriety of Bearing Testimony to True Merit.

In a practice of over fifteen years I do not think I have written over three or four testimonials for proprietary medicines, but I cannot see any impropriety in bearing testimony to a truly meritorious remedy, and especially where that remedy has stood the test of time with thousands of physicians who with one accord verify its curative virtues in a certain line of disorders. This is true of the preparation, Sanmetto, which I consider a wonderful remedy and almost a specific in all inflammatory diseases of kidney and bladder. I prescribe it daily in my practice, and it has never yet disappointed me, but has frequently surprised me by its wonderful curative powers. When I am called to treat a case of cystitis my thoughts revert to Sanmetto; in fact, I have learned to associate Sanmetto with cystitis, but from the thousands of testimonials received, and the number of favorable reports in the medical journals, I hardly see why the manufacturers of Sanmetto desire more. It seems to me that a physician who does not know of the virtues of Sanmetto is very far behind the age.

Columbia, La. W. P. Hough, M. D.

N. C. Vaughan, M. D., of Cincinnati, O., graduate Howard University, Washington, D. C., 1896, member National Association Colored Physicians and Surgeons, member of Ohio State Medical Society, member Cincinnati Academy of Medicine, writing, says: "I most cheerfully recommend Sanmetto for prostatic and bladder troubles. It makes peace with the stomach, is readily assimilated, has special affinity for the urinary tract, healing and giving tone to the diseased parts."

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NEPHRITIS PYELITIS URETHRITIS CYSTITIS CALCULUS RHEUMATISM GOUT GONORRHEA GLEET. BACTERIURIA OF SCARLET, TYPHOID AND OTHER FEVERS, PNEUMONIA

Suprarenalin in Pulmonary Hemoptysis.

The note by Dr. A. C. Bird on this subject is particularly interesting to me, as I have quite recently had a parallel case to his.

My patient, a young clergyman, was sent to this district about two years ago, suffering from pulmonary phthisis. In September of last year he had a rather severe attack of hemoptysis, which, however, rapidly subsided under the ordinary treatment—absolute rest in bed, application of ice, etc. On December 6th he had a second attack—a very severe one—and in spite of the ergot and opium (both internally and hypodermically) sulphuric acid, hazeline, terebene, ice locally and in the mouth, and absolute rest of body and voice, the copious coughing up of blood continued until the patient's pulse began to show signs of collapse.

On December 19th I prescribed a teaspoonful of 1 in 5.000 solution of Suprarenalin (Armour) three times daily, and from the giving of the first dose the condition of the expectoration changed, the bright red gave place to the "foxy" color, and after the third dose of Suprarenalin all trace of blood in the sputum had gone, and has not reappeared as yet.

I have still more recently used Suprarenalin in a second case of hemoptysis, with equally rapid results, and also in a case of fairly severe post-partum hemorrhage again, so far as one can tell, with excellent effect. Arthur S. Hadley, M. B.

Composition of Aqueous Humor in Cases of Senile Cataract.

Troncoso, Uribe, Mexico, presents an elaborate study of ten cases where he analysed the aqueous and came to the following conclusions:

1. The quantity of albumin is not increased in the aqueous during cataract formation.

2. In incipient nuclear cataract the saline constituents are increased; not so in incipient cortical cataract.

3. Toward the period of maturity the aqueous seems about normal.

4. In over-ripe cataract there is an increase in the proportion of organic material in the aqueous.

5. There are two distinct physical periods during the formation of cataracts, one of absorption of water (and swelling), one of loss of water and contraction; but it cannot be admitted that the increase in the quantity of salts causes opacification.

6. This increase in proportion of salines in incipient cataract encourages the belief that during the period of initial cataract there is a subtraction of water, a drying of the nucleus, and as this contracts the changes in the perinuclear zone begin.—*Annals de Optalmologia.*

An Oats Diet in Diabetes.

The value of an exclusive diet of oats in severe cases of diabetes mellitus was announced in 1892 by Carl v. Orden, who now publishes some further observation on this method of treatment (Berlin, klin Woch.) He has now treated about 100 cases with varying results. The diet consists of oats given in large quantities, in the form of oat flour or flakes, together with simple albumins and butter—excluding all other carbohydrates and meat. The usual daily allowance consisted of 250 grams of oats, 100 grams albumin (vegetable or from eggs), and 300 grams of butter. This was made into a soup and given every two hours. Wine or cognac was occasionally allowed, and also strong black coffee. He details a number of typical cases in which this diet was tried, and in comparison with the other cures lately proposed, such as the potato diet of Mosse and the milk diet of Winternitz, the oats diet was attended with much more favorable results. A mixed diet of oats and wheat bread immediately was followed by an increase in the amount of sugar. The author advises, however, against the employment of this method in all cases, and suggests that a careful trial be made in each individual instance, for he himself has observed cases in which the diet was attended by no improvement or even made the patient worse. The theory of the action of this food still remains in abeyance, but is being made the subject of experiment by the author.—*Indian Medical Record.*

We note with interest that the Fourth Annual Summer Course in Medicine of the Tulane University of Louisiana will begin May 2 and last six weeks.

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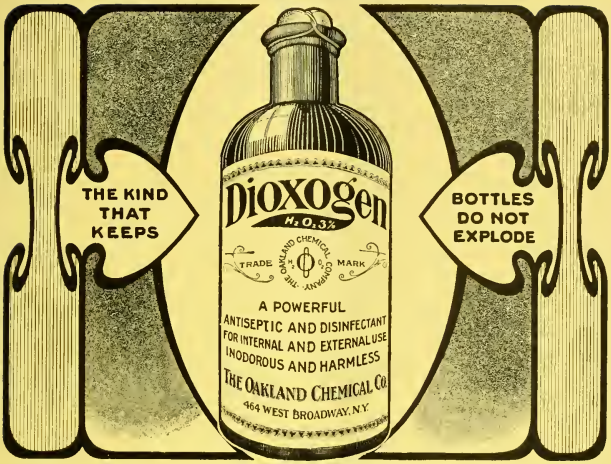

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For further information address the Superintendent, St. Peter's Hospital.

Diabetes Mellitus and its Treatment.

The author having made a life study of this disease, says the direct cause of death from diabetes is acid intoxication and coma. Certain signs present themselves a long time before coma is established and acetone and diacetic acid can be detected in the urine, the former appearing first, followed by diacetic acid and this later followed by oxybutyric acid. When diacetic acid is found in the urine of diabetics it is always a symptom of grave import and its occurrence may be looked upon as a probable forerunner of diabetic coma and rapid death. Experiments show that acid intoxication produced by an exclusive meat diet disappears when carbo-hydrates are eaten. After the carbo-hydrates and proteids are excluded the fats remain the main source of acid intoxication. In the treatment the first step is to keep the patient from taking cold, avoid all fatigue, drink water freely, with large quantities of bicarbonate of soda, colonic flushings and laxatives. As a preventive to the formation of acetozone he had found a urinary bactericide of great importance, and for this purpose he used uriseptin, a solution of lithium methaminate in conjunction with corn silk and couch grass. The absence of ammonia in this preparation makes it of vital importance in certain forms of diabetes, such as cerebo-diabetes.—James H. Reed, A. M., M. D., of Battle Creek, Mich.

[Uriseptin is also indicated in pyelitis, nephritis, gonorrhœa, cystitis and all other inflammatory conditions of the urinary tract.]

A Remarkable Case of Gout with Rapid Relief.

The patient, Monsieur Leon V. E. aet. 42, a prominent musician, had been subject to gout for some years, and at the time I saw him was suffering from an acute attack which paralyzed his right arm so that he was incapable of lifting it even with great effort.

The pain, swelling and inflammation, was most severe.

The patient had an important engagement to play at a concert that same evening and it was too late to get any one to replace him, so that he was very anxious to obtain even temporary relief.

I recommended local application of betulol (methyl-oleo-salicylate comp.) and prescribed one capsule of colchi-sal every quarter of an hour for the first hour, and again, after an interval of one hour, one capsule every half hour until relief was obtained.

On calling again the same evening, I was surprised to find the patient dressed and about to leave the house for the concert room, where as a matter of fact he was able to play as well as usual.

I found on inquiry, that he had either misunderstood my instructions or intentionally taken *fifteen capsules within an hour!*

No ill effects followed and the attack of gout did not reoccur for some time, although no great precautions were taken as to diet.

Patient describes having experienced "a peculiar sensation" after taking the fifteen capsules, but says he was able to use his arm without the least difficulty or pain.

Such heroic doses of colchi-sal are not desirable or to be recommended under any circumstance, but this case clearly proves that this combination of colchicine and methyl salicylate can be given without untoward results, whereas I am inclined to believe that colchicine alone might have produced serious consequences (the amount taken in one hour in the form of colchi-sal being four milligrams).

The depressing effects of colchicine on the heart and the violent irritation produced by this alkaloid on the mucous membrane and epithelial tissue (which have been known to cause death in some few cases of granulated kidneys), seems to be avoided in colchi-sal, owing to the prompt elimination of the drug which prevents accumulation in the system. This rapid elimination is due to its combination as a compound colchicine-methyl-salicylate.

The normal dose of from twelve to sixteen colchi-sal capsules in the twenty-four hours, has never produced untoward after effects in my hands.—Dr. E. Petit (Paris). *Translated from the Revue de Pharmacologie Medicale.*

Subcutaneous Injections of Arsenic in Phthisis.

Arsenic has been used since the days of Antyllus and Galen in the treatment of consumption, and in recent times, in one form or another, this drug has been widely recommended. It is said to increase the appetite, to lessen the shortness of breath, to improve the weight, to check night sweats, and to exert a beneficial influence on the pulmonary process. H. Cybulski (Munch. med. Woch.) has tried subcutaneous injection of sodium arsenate in 10 cases, and now publishes his results. He chose cases which were not too far advanced to exclude a possible cure, and which presented slight pyrexia, in order to be able to watch the effect on the temperature. The solution used for injection was: Sodii arsenici 0.2 (=circa 3 gr.), liq. acid carbol. ½ per cent. 20.0 (=cica 5½ drs.). Of this solution, one-tenth of a c.cm. syringe (equivalent a little more than 1½ min.) was injected at first,

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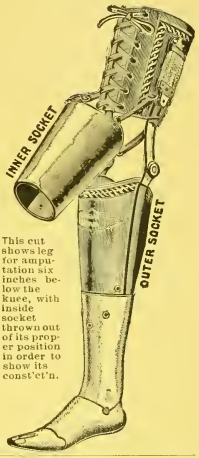

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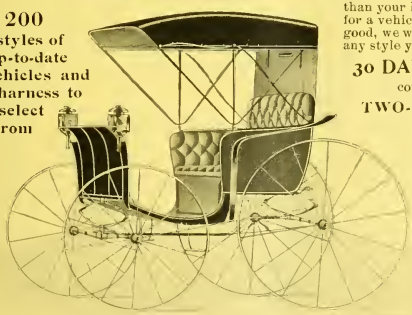

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and the dose was increased by one-tenth c.cm on every second day, until a whole c.cm. was reached. In all, twenty injections were made, and when there was any improvement, after the lapse of two or three weeks, the injections were again begun. The solution was kept warm, and no actual pain was complained of. In four cases the injections had a definite effect, while in the remaining six no action could be observed. It caused a falling of temperature, but this was only temporary. He further noted that the body weight increased slightly, and the appetite was also excited, even if not to any great extent. The effect on the subjective condition was favorable, and he states that the night sweats were often lessened. The intestinal symptoms were not affected, but no diarrhœa was produced, as is frequent when arsenic is given by the mouth. The injections had no effect on the kidneys or heart. Finally, he says that subcutaneous injections of arsenic has no effect on the process in the lungs at all.—*Indian Medical Record.*

On Removal, After Suprapubic Cystotomy of the Prostate and of the Prostatic Urethra.

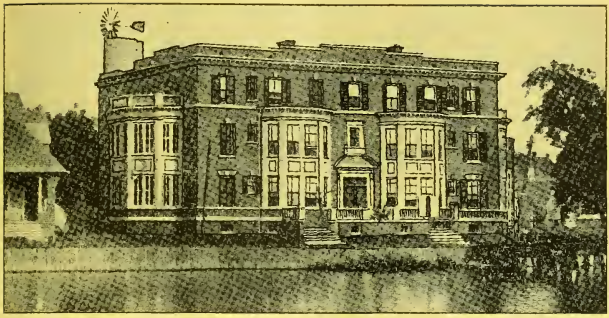
Moynihan (Leeds) has operated upon a series of twelve cases of senile enlargement of the prostate, by removing the prostate and the prostatic urethra. The first case was done on September 3, 1901. The prostate was easily shelled out from its capsule, bringing with it the whole of the prostatic urethra. As no untoward symptoms resulted from this, and the patient was, and still is, able to pass his urine in a perfectly natural manner, the same operation was done on eleven other cases with uniformly good results, with the exception of one case which proved fatal. The ages of the patients have been 59, 66, 56, 60, 57, 60, 73, 72, 65, 73 and 68. In four of them a stone was found, and upon one of these patients a suprapubic operation had been performed for stone fourteen years before.

The operation is carried out as follows: The bladder is washed out with a 1-per-cent. carbolic acid solution, and ten or twelve ounces of the fluid allowed to remain. It is then opened above the pubes and fastened to the abdominal wall by two silkworm-gut sutures passing through its wall and the entire thickness of the abdominal wall, on each side. These sutures are not removed till the fourth day. With the left forefinger in the bladder, a snip is then made with a pair of sharp-pointed scissors into the mucous membrane of the trigone, immediately behind the internal meatus of the urethra. The tip of the finger then deepens and enlarges this opening. Two fingers of the right hand, on which a glove is worn, and then passed into the rectum, and with the thumb on the perinæum the prostate is raised and fixed while it is being stripped from its capsule. The enucleation is easy and rapidly performed, as a rule, in from two to five minutes. The larger the prostate the easier the stripping. There is little bleeding, as a rule, although in two cases it kept up for twenty or thirty minutes. Very little gap seems to be left in the base of the bladder. The latter is washed clear and drained. Considerable pain follows the operation, making the use of opium advisable. The tube is removed in forty-eight hours and the patient allowed to sit up, *and let out of bed at the end of a week.* The bladder is washed ont daily, and a drag used on the suprapubic wound from the seventh day on. Between the fourth and fifth weeks the patient begins to pass urine spontaneously. Urotropin or helmitol is used in 10- to 15-grain doses three or four times daily. In two cases, where the cystitis was very severe and the urine most foul, after the bladder had been washed out, a stream of oxygen was passed through the catheter, and the bladder, as it were, washed out with oxygen. Over the suprapubic wound a tight-fitting impervious cap was placed, having a small leak to allow of the escape of the gas. In this way the healing of the wounds was certainly hastened.

It is, as a rule, only in the cases where catheter life is impossible or has ceased to be a relief that operation is advised. The author urges strongly that these old folks should not be kept in bed too long after operation. They should be allowed to sit up within two or three days of the operation, and hedged around with every care and comfort. A synopsis of the twelve cases is appended.—*Annals of Surgery*, January, 1904.

The Modern Diagnosis of Tuberculosis.

Now that so many cases of tuberculosis are capable of cure under modern methods of treatment it is more than ever desirable to recognize the earliest stages of the disease. Of recent years science has given us two additional weapons of diagnosis in the shape of the Roentgen rays and the detection of the specific organism of the malady. The X-rays are useful mainly, if not altogether, in lung consumption. They indicate with precision the extent and position of the disease as well as the progress of the case. Moreover, in the early stages they often afford indirect evidence of value by demonstrating the loss of elasticity in the lung, as shown by the diminished respiratory excursion of the diaphragm on the affected side. The presence of the tubercle



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bacilli in the sputum is proof positive of the existence of tuberculous disease in the lungs or air passages. It is therefore of the utmost importance to examine the sputum at frequent intervals when any doubt surrounds a diagnosis. It is also important to examine pleuritic effusion for the bacillus, as many cases of pleurisy end in phthisis pulmonalis. Dr. J. Odery Symes, of Bristol, has recently published an account of an interesting case of fatal tuberculous pericarditis which was frequently tapped during life and the tubercle bacillus readily detected. A similar bacteriological test may be applied to the fluid exudate of other serous cavities, as, for instance, the meningeal, the abdominal, and the articular. With these modern aids to diagnosis the careful physician should be able to detect with certainty a largely increased proportion of early cases of tuberculous disease. It seems likely, however, that a certain mar-

gin of cases will defy all ordinary diagnostic methods, that is to say, of course, in the early stages. The wise dictum of the great physician to the effect that all of us now and then overlook a case of early phthisis is therefore likely to hold good until tubercle is banished from the face of the earth by the systematic attack of preventive medicine.—*Medical Press and Circular.*

A New Use for the X-Rays.

The phenomena of radio-activity are so surprising in their effects upon organic and inorganic substances that fresh spheres of usefulness seem to be discovered for them almost daily. The power of the X-rays to influence cell growth is taken advantage of in the treatment of malignant disease, while their physical property of penetrating objects hitherto deemed impenetrable renders them indispensable to surgical work. Now we are informed that they are accredited with certain psychic effects, for M. A. Béclere has reported a case of hysterical mutism cured through their agency. The patient was a young married woman, aged 26, who received a severe mental shock through witnessing a conflagration. She suddenly lost consciousness, and on recovering herself found she had completely lost the power of speech. She was consequently admitted into the Hospital Saint-Antoine. The pharyngeal and corneal reflexes were abolished, and there were irregularly scattered areas of anæsthesia and hyperæsthesia about the body. There was no paralysis. Methylene blue was prescribed, together with active suggestions, but this treatment proved of no avail, for four days afterwards she was still aphasic. She was then taken to a room where other patients were about to undergo radioscopic examination. The apparatus and the dark surroundings caused her some alarm, but when the current was switched on she recovered her speech from that moment. The influence of suggestion was, no doubt, not unimportant in the production of the beneficial result, but the rays were the medium through which it acted. Any sudden or unexpected shock, such as the application of the galvanic current to the glottis, will generally effect a speedy cure in cases of hysterical aphonia, but where other methods have failed the psychic influence of the X-rays might be borne in mind.—*Medical Press.*

On the So-Called Caruncles of the Female Urethra.

Lange (M.) (Zeitsch fur Geburts, u. Gynak, Bd. 48, H. L.) 1. Caruncle of the urethra is one of the most common and least understood of the affections peculiar to women. For long it was described as a form of new growth, but nowadays it is gradually becoming understood that the affection is nearly always inflammatory in origin. Lange carefully examined 1000 consecutive female patients, and found in 58 of them caruncle of the urethra, which was removed and submitted to microscopic examination in every case. He found that three distinct types of growth can be distinguished, and that these appear to be about equally frequent. Nineteen of the 58 growths are described as simple granulomata; these showed great and widespread infiltration, with round cells, and a remarkable number of capillaries. The vessels were frequently found to be plugged with leucocytes, which is a sign of inflammatory origin. The gonococcus appears to be a frequent cause of this variety, but not of the other two varieties of caruncle. In a second group of 19 cases the growths are described as papillary angiomata, or more precisely a hyper-vascularised papillary mucous polypi. In these there is a thick stratified epithelial covering, showing numerous papillary elevations into which the connective tissue sends processes, simple or branched. The connective tissue is always fibrillary, and there is never diffuse round celled infiltration. Very numerous blood vessels are present; these are always normal in appearance, and are never plugged with leucocytes. The third group consists of twenty cases of simple angioma, or more accurately two of telangiectatic mucous polypi. In these there are numerous thin-walled vessels like capillaries, but with their laminæ notably and irregularly widened. These ectatic vessels are found in the midst of areas of connective tissue, free from round cells, and often remarkably poor in nuclei. Occasionally the vessels are so large and so close together that the tissue almost appears cavernous. Hæmorrhages are frequently observed in this variety, and cysts lined by a layer of low cubical cells are common. The epithelium is stratified and squamous, but shows no tendency to the formation of papillæ or buds.

In 32, equal to 58·8 per cent, of Lange's cases, no symptoms were present which could be ascribed to the caruncle. Where urinary symptoms were complained of Lange usually found complications; in five cases only were urinary symptoms and no complications, and in three of these the pedicle was inserted more than an inch above the meatus. To this high insertion Lange refers the symptoms. Bleeding was observed in two cases only. The remarkable statement is made that the caruncle itself was not tender in any case; this must surely be an uncommon experience. With regard to the etiology, none of the other cases

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were observed under the age of 20; this he admits, however, to be possibly accidental, because in 231 collected cases 21.2 per cent. occurred under 21 years. Granuloma especially occurs between 20 and 40; the papillary mucous polypus under 40. At middle age all three occur with equal frequency. It is suggested that the papillary variety may be due to the vulvar atrophy of old women, with gaping of the urethral orifice. The author appears somewhat uncertain as to the exact relations between the gonococcus and the vascular caruncle.—*The Australasian Medical Gazette.*

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Care of the Feet.

The following hints will be found useful in caring for the feet, both in sickness and in health:

The feet should be washed daily in tepid water and soap, finishing with a dash of cold water to quicken circulation and prevent their becoming too sensitive.

Friction is indispensable to remove tough and callous surfaces, and to render the foot soft and flexible. Callosites may be smoothed with toilet pumice-stone. They will not occur if the feet are washed daily. The nails should be cut square across the top.

If the feet are dry, rub in a little fine toilet cream or vegetable oil until absorbed.

If the feet are moist, rinse in water containing a little powdered alum, vinegar, or ammonia. After wiping them perfectly dry, dust on a little talcum powder.

For feet which suffer from excessive perspiration, a little carbolic acid, say, twenty or thirty drops, in a basin of rinse water is efficacious. Soda is also excellent to neutralise the acid of respiration. The hosiery should be changed daily, and the street shoes exchanged for slippers or low shoes when at home.

As a rule, the feet are not sufficiently ventilated, and the large pores of the soles reabsorb much of the impurities which they throw off. A frequent change of shoes and stockings, and exposure to the air when possible, obviates much of the unpleasant odour consequent upon constant imprisonment of the feet in thick leather.

Half an ounce of borax to a pint and-a-half of water makes a good rinsing solution.

Boracic acid in powder form may be dusted on feet which perspire disagreeably with good results.—*Brit. Jour. of Nursing.*

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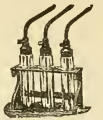

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Lena D., a young miss of 18, had been a sufferer from chronic rhinitis or pharyngo-nasal catarrh for more than ten years, being subject to periodical attacks of coxyza and tonsilitis, especially during the spring, fall and winter months. The mucous membrane of the throat and nose became habitually flabby, congeted and swollen.

At the age of 12, the characteristic thick, indistinct speech and stentorous breathing of the catarrhal subject became manifest, while at the same time, the plugging of the pharyngeal opening of the eustachian tube by the thickened mucous secretions gave rise to slight deafness.

The treatment throughout had consisted of insufflations of the usual antiseptic powders, ante- and post-nasal douches with the modern germicide solutions, while various astringent or disinfectant gargles and sprays were used for the tonsilitis, but these gave only temporary relief. It was apparent that only the membranous surface was thus freed of its obnoxious discharges and not the deeper sub-mucous tissues and gland sacs which harbored (unwillingly) the germs that gave birth to these discharges and it become self-evident that some more active method of treatment must be adopted.

In dental surgery it is well known that an antiseptic solution having an alkaline base is the most effective for cleansing the mouth of putrefactive material arising from fermented food (starch particles in the substances adhering to the teeth), as well as that caused by the bacteria of dental caries, leptothris buccalis, etc. This fact is explained on the chemical ground that the alkaline base combines readily with these various weak acids with which it comes in contact, thus breaking up the solution and liberating the oxygen or oxidizing agent upon which its disinfectant properties depend. In a word, such an alkaline agent dissolves the mucous secretions and weak acids which form in the mouth.

Were the foregoing all that is required of an antiseptic, nothing further would need to be said, but it is essential that the bacteria hidden more deeply within the walls of the gland sacs should also be removed. Recognizing the force of the suggestion recently made by scientific investigation, i. e., that a true alkaline germicide dissolves the bacterial envelope instead of coagulating it as do the acids and that if the specific gravity is favorable to low exosnotic action it will be absorbed into the surrounding tissues and gland sacs where the germs are hidden, it at once occurred to us that an alkaline agent of this character was just what was needed.

Feeling convinced that an alkaline antiseptic was strongly indicated in this case, the best of its kind, Glyco-Thymoline, being selected, was applied thoroughly once every day by myself and three or four times daily by the patient. A 25% watery solution (warm) of Glyco-Thymoline was made by me and applied in a fine spray to the post-nasal chamber by means of a hand atomizer. The nozzle was turned up at the end so that when introduced well back into the pharynx the spray was thrown upward direct into the post nares.

The patient herself soon learned to operate the post-nasal douche satisfactorily and was instructed to spray the parts in this manner twice daily, besides applying the solution (in the same strength), with the K. & O. Douche. At the same time an ounce of 50% solution of Glyco-Thymoline was gargled and used as a mouth wash three times daily for the purpose of hardening the flabby, congested tonsils.

The outcome of this simple plan of treatment soon made plain the fact that a germicidal agent was being employed in this case which possessed the alkaline and solvent properties already mentioned as being essential to success. The patient's general system had first been thoroughly purged of retained waste by way of kidneys and bowels, after which the local treatment was adopted as above described. This latter procedure was not only effective, but the antiseptic proved very agreeable to the patient who for the first time in several years experienced the sensation of possessing a clean, sweet mouth.

The hypertrophied membrane itself grew almost normal in appearance, distinctness of speech and hearing was gradually restored, the breathing became natural and at the end of three months we had accomplished a speedy and perfect cure.—*G. A. Gilhert, Danbury, Conn.*

Elastic Tissue of the Uterus during Pregnancy.

Iwanoff has studied the elastic tissue of the uterus during pregnancy. The non-pregnant uterus is vascular, and elastic fibres are found around the blood-vessels and muscles usually arranged in a parallel manner. During gravidity there is decided poliferation of the perimesium. The elastic

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tissue becomes more pronounced and sometimes appears in clumps. This proliferation of the elastic tissue is first manifested by the appearance of some granules that apparently are formed from the protoplasm. By the third month these granules become less numerous, and the masses of elastic tissue grow more pronounced. The muscle bundles at this stage appear to be surrounded by a network of the fibres. Sometimes irregularities and fractures in the muscle-cells can be observed, which Iwanoff ascribes to a possible contraction. At the beginning of the second half of pregnancy there is distinct stretching of the uterine tissue. Toward the end of pregnancy the elastic tissue becomes less distinct. Some fibres stain faintly, others not at all, others still stain well, but have the appearance of having been stretched and broken, that is to say, there is every evidence or destruction of elastic tissue. In the uterus of a woman who has had children, there is always more elastic tissue than in the non-parturient uterus. The function of the elastic tissue seems to be to support the wall of the uterus in the early part of pregnancy when it is soft, in the latter part when it is thin, and at the same time subjected to considerable continuous effort.—*Virchow's Archiv.*

Clinical Value of Cystoscopic Examination of the Urine.

Bernard (Presse med. belge, Bruxelles, March 18, 1903) considers the clinical significance of the cellular elements as found in the urine. To obtain the same the best method for employment is centrifugalization. However the precipitate is procured, a portion should at once be placed in a slide under a cover-glass and examined unstained.

The cellular elements found in the urine fall under four categories: (1) Tube casts; (2) epithelial cells from the mucous membrane of the urinary tract; (3) blood and pus cells, and (4) other cell forms. After discussing the different types of casts, Bernard directs attention to the valuable deductions which may be drawn from careful scruting of the different characters presented by the epithelial cells present. As a general rule, it is extremly difficult to differentiate epithelial cells of one portion of the urinary tract from those of another, altered as they generally are by the action of the urine. Three varieties, however, may with some degree of accuracy be made out.

1. Large cells of polygonal contour, flat or partly folded on themselves, with granular protoplasm and distinct nuclei. These are the pavement cells of the lower passages, the largest from the vagina, the others from the ureters and bladder.

2. Cells of medium size, polymorph some of them, irregular, cylindrico-cornical; others rounded with a clear nucleus. It is not easy to say whether these cells come from the pelvis af the kidney, the ureters, or the bladder. The rounded variety seems often to be associated with pyelitis. When associated with leucocytes they appear, in the absence of other epithelial forms. to indicate suppuration in the pelvis of the kidney.

3. The third class are small and in various shapes, cylindrical or cylindrico-conical, with granular protoplasm and a well-defined nucleus. Their source is the urinary tubes of the kidney.—*Edinburgh Medical Journal.*

Nasal Dysmenorrhea.

The presence of errectile tissue in the nasal fossæ. and the close connection between this structure and the genital function lends some plausibility to the suggestion that dysmenorrhea is sometimes directly due to intra-nasal lesions. *A priori*, the fact would not strike one as more remarkable than the intimate connection that has been shown to exist between nasal obstruction and asthma, for instance. What may be termed the genital area in the nose has been located by Dr. Fliess in the tubercle of the septum and the inferior turbinal, and the principal argumeat advanced in favor of the existence of a nasal form of dysmenorrhea is based on the results of intra-nasal medication. Dr. Linder, of Munich, claims that in certain recorded cases anesthetization of the nares by solutions of cocaine or menthol invariably determined the disappearance of the uterine pain. Going a step further, it is stated that irritation of the nasal mucosa during laparotomy caused modifications of the uterine circulation and contraction of its muscular structures. If this be really the case a pinch of snuff ought to prove a trustworthy ecbolic, but we are far from convinced of the existence of the alleged functional relationship.—*Medical Press and Circular.*

Brief Observations on Some Conditions in Women that are of Much Concern to the Practitioner.

The conditions of which I wish to speak are dysmenorrhea, and the state following miscarriage or abortion, in which there are retained portions of the placenta and membranes that require removal or expulsion.

For lack of space, I shall devote myself, in the present paper, chiefly to dysmenorrhea, and will dismiss the condition following abortion with a few remarks, which may as well precede the other part of my

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article. I reserve for a future communication the detailed discussion of this important and interesting clinical condition.

The effects of retained placental or fetal tissue in a partially successful miscarriage or abortion consist in hemorrhages, purulent discharge, enlargement of the uterus, subinvolution, metritis, endometritis and sepsis. The indications in these cases are, therefore, the thorough emptying of the uterus and the rendering of the womb-cavity aseptic.

In ordinary cases this must be done by surgical interference, including curetting and the removal of all decomposing and diseased tissue, followed by the application of antiseptics to the endometrium. There is a class of cases, however, in which for one reason or another curettage is refused by the patient, and in which it is incumbent upon the physician to give what relief he can by medical means. In such cases I have prescribed Ergoapiol (Smith), a combination of the active principles of ergot (ergotine) parsley (apiol) and certain other emmenagogues and uterine tonics. In one case of this kind which came under my observation some months ago, I used Ergoapiol (Smith) with such marked success, that I learned since then to rely upon this preparation in removing the retained fragments from the uterus, emptying the organ and reducing it to its normal size and function. The remedy in question has proved so trustworthy in my hands in these cases, that when it disappoints, which it rarely does, I look about to ascertain wherein I myself have erred.

A discussion of the causes of dysmenorrhea would lead us too far in the present brief clinical paper, and it will suffice if I assume that the reader is acquainted sufficiently with this part of the subject to follow me in the remainder of the article. The clinical diagnosis of dysmenorrhea is in itself easy enough, while the diagnosis of the cause is not always so simple. In the cases presented here I paid especial attention to the causation of the menstrual pain, as I believe that in this manner I was better able to outline the indications for treatment. It goes without saying that dysmenorrhea from mechanical obstruction is not amenable to medical treatment. Fortunately, however, it has been in my experience at least, not frequent, as dysmenorrhea depending upon congestion. The specially disagreeable and intractable form of dysmenorrhea which is accompanied by a fetid discharge as a result of the decomposition of the retained menstrual blood, also comes under discussion here, as the use of douches with antiseptics and deodorants cannot be hoped to affect it permanently, while the employment of more radical medicinal means does bring about the desired effect in this condition.

In congestive dysmenorrhea, and in that form which is accompanied by fetid discharge, the indications are to diminish congestion, by promoting the contractions of the uterus and relieving it of the accumulated blood, to stimulate glandular activity in the mucosa, to restore the tone of the uterus and the nutrition of its tissues to normal, and to relieve spasm and pain.

The following cases illustrate the effects which I obtained with the use of Ergoapiol (Smith) in the treatment of dysmenorrhea:

Some months ago I was consulted by a young woman who had suffered from scanty, menstruation, accompanied by a great deal of pain, since the birth of her first child seven years previously. Her labor had been followed by a tear of the perineum which had been left unrepaired, and also a laceration of the cervix uteri. This patient consulted a specialist, but his treatment did not give her relief. Examination revealed the presence of the uterine and perineal lacerations already mentioned, and disclosed a chronic endometritis that had given rise to a fetid discharge and to pain during each menstrual period. I repaired the tears, curetted the uterus, and hoped in this manner to obtain permanent relief of the patient's symptoms. After she had recovered from the operations, she declared that she was feeling better than she had been for years. But very soon the fetid discharge and the pain returned at each menstrual period, and evidently something else had to be done if I wanted to save my reputation. I then tried local applications, alteratives, uterine tonics, etc., all without avail, until finally Ergoapiol (Smith) was given. The result was immediate relief and a gradual and permanent improvement in the menstrual flow until it was free from pain and devoid of any disagreeable odor.

This patient was evidently suffering from congestive dysmenorrhea which was intensified by the presence of lacerations of the cervix and the perineum which had existed since parturition. The result attained illustrates very well how Ergoapiol (Smith) acted upon the uterus, restoring its tissues to normal condition and re-establishing the menstrual function upon its normal basis.

Another type of dysmenorrhea, that which I term "nervous," but which the authorities term "neuralgic," is illustrated by the following case which recently came under my care:

The patient was a young woman who had been married two years, but had not borne any children. She stated that she had pain during the menstrual period from the first

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onset of menses, and at the time of examination she also complained of a fetid discharge. The menstrual flow was scanty and rarely of blood red color. Just before and after the period she had backache, her complexion was unhealthy, not bright and clear as that of her sister, and she appeared older than she really was. She always dreaded the onset of the menses which recurred with a regularity that is not always present in these cases. She was easily excited, and received impressions vividly and indelibly. Her digestion was poor, and she was often sleepless, irritable, and peevish.

Vaginal examination revealed a slightly thickened os and slight endocervicits with erosions of the cervix. Cod liver oil, malt extract, hypophosphites, and aromatics, in combination, 25 per cent. of each, were given freely during the intervals between the menstrual periods and for three days before the expected menstruation Ergiopial (Smith) was given in capsules, one being given three times daily until the discharge ceased. At the fourth period after the beginning of the treatment she was relieved of all her symptoms, and was free from pain and fetor during menstruation. Locally, tincture of iodine and occasionally tampons of ichthyol and glycerine were applied. The cure was permanent and in every way satisfactory.—*J. Rigley Simms, A. M., M. D., Racine, Wis., in the Medical Herald.*

Firwein (Tilden's) in Tuberculosis.

Much has been written in late years about sanitarium and climatic treatment for consumption and there can be no doubt of the efficacy of such treatment. Unfortunately the prevalence of tuberculosis is so widespread among the masses who are almost entirely dependent upon their own work or upon the meager income of the family for sustenance that unless the state steps in and provides free sanitaria in suitable locations it is useless to suggest this treatment for such sufferers. The toilers in our large cities affected with consumption cannot always leave their homes and shops to take up an outdoor life and unfamiliar outdoor work, much of which would be beyond their strength to perform.

While it is important to impress upon these sufferers the importance of fresh air, by day and by night, and to encourage hygienic reforms which will tend to increase the resistance of the system against the ravages of the disease and to prevent its spread to the healthy, it should not be forgotton that Tilden's Firwein is one of the most potent remedies for all forms of tuberculosis. The suggestion of Cavazzeni that Iodine in tuberculosis acts not merely as a pulmonary antiseptic, but probably exerts an antitoxic action similar to that which, according to Brunezzi and Luccessini, it exerts in typhoid fever, goes a long way to explain the demonstrated efficacy of Firwein as a remedy for consumption. Besides Iodine, Firwein (Tilden's) contains Bromine and Phosphorus held in solution by an elegant Wine of Fir, a product of the laboratories of The Tilden Company.

Temperature in Relation to Shock.

Kinnaman (Annals of Surgery, Philadelphia, December, 1903) has conducted an elaborate investigation into temperature relationship existing in shock. His conclusions are that shock must be considered as due to the lowering or exhaustion of one bodily function, but as a composite condition embracing a lowering of the blood pressure, a lowering of the respiratory act, and a marked fall in the body temperature. As shock increases in severity, the most uniform and progressive factor is the fall in temperature. In some experiments the fall in temperature was the sole cause of shock. If the temperature is maintained the respiratory rate may be increased instead of diminished, and the fall in blood pressure is greatly lessened. By raising the temperature (previously lowered by shock), the respiratory rate is increased and the blood pressure raised. The author, therefore, looks upon lowering of the temperature as a most important factor in causing shock, and as a prominent feature of the condition.—*Edinburgh Medical Journal.*

Prolapse and Pessaries in Age.

Noef (Centralbl. f. Schweiz. Aerzte) was consulted by a woman, aged 72, suffering from complete procidentia. As she was old, a Braun's pessary was applied, and it afforded effective support. The patient neglected to come three months later in order to have the instrument replaced, and Noef did not see her till a year later, when she consulted him for another affection. He then attempted to extract it entire, but was obliged to take it away piecemeal, as the vaginal orifice was extremely contracted. The patient declined to have another pessary applied. A few days later the procidentia returned. Noef then applied an elastic pessary, which acted perfectly. He thinks that the contraction of the tissues after introduction of the pessary is an essential feature in the cure of the prolapse, being the return of their tonicity after the weight of the upper structures is taken off by the instrument; the latter, of course, should be elastic, to allow of its periodical removal and replacement.—*Brit. Medical Journal.*

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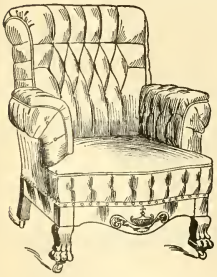

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An Interesting Case of Subastragaloid Dislocation.*

By Lewis C. Bosher, M. D., Richmond, Va., Prof. of Practice of Surgery and Clinical Surgery, Medical College of Virginia.

In suastragaloid dislocation the astragalus remains in situ in the tibio-fibular mortise, but the other bones of the tarsus are displaced from it. This displacement may occur either in a backward, forward, or lateral direction. The backward is the commonest form and is the variety here reported. More or less lateral displacement is usually observed in backward dislocations, the foot being displaced either backwards and outwards, or backwards and inwards, from the astragalus. This young man (age 19 years) received his injury while horseback riding, the horse slipping and falling, caught the foot of the patient beneath him. In attempting to liberate his imprisoned foot he sustained a severe wrench that caused the dislocation. Shortly after the accident and about 24 hours before he came under my surgical care at the Memorial Hospital, under an anæsthetic, an unsuccessful attempt was made by his family physician to reduce the dislocation. Upon admission to the hospital, the patient was found to be suffering from great pain and swelling of the foot and ankle. The foot was everted and the sole directed outwards. On the inner side of the foot the rounded head of the astragalus, with the skin stretched tightly over it, could be plainly made out. The inner malleolus was quite prominent, a depression marking the location of the external malleolus. The foot was freely moveable at the ankle and the deformity presented an appearance not unlike that seen in a case of Pott's fracture. To add to the similarity some crepitus could also be made out. I was under the impression that I had a dislocation of the astragalus with a complication of fracture of the external malleolus to contend with, but this mistake could have been avoided had I observed that the relation of the malleoli to the astragalus was unaltered and that there was "no shortening from approximation of the os calcis to the tibio-fibular arch, as there is in complete dislocation of the astragalus." After the patient was anæsthetized a number of attempts were made by extension and counter-extension aided by various manipulations, to reduce the dislocation, but unsuccessfully. A tenotomy of the tendo-Achillis was then performed with the hope of being able to correct the deformity, but this measure also failed. An open aseptic operation was then determined upon as offering the best chance for a successful result. A three-inch skin incision commencing just above the tip of the inner malleolus and extending downwards and joined by an inch traverse incision about midway, exposed the displaced bone and injured tissues nicely. The dislocation was found to be incomplete as to the articulation of the head of the astragalus with the schaphoid but incomplete as regards the astragalo-calcanean joint. The ligaments binding the bone together were badly lacerated. The head of the astragalus was seen to be displaced inwards and the under surface of its neck had become locked against the sharp posterior-superior border of the scaphoid while the tendon of the tibialis anticus had become hitched round the neck of the bone—this displaced position of the tendon explaining the unsuccessful result that followed an attempt at reduction by extension and manipulation before the incision was made. The extremity of the external malleolus was fractured and some small fragments were chipped off from the posterior surface of the astragalus, while the periosteum was partially detached from the internal malleolus. Lifting the tendon with the handle of the scalpel and making extension upon the foot was followed by a prompt slipping of the displaced bone into its normal position. After suturing the torn sheath of the tendon, removing some fragments of broken bone, reducing the fractured external malleolus, and cleaning the cavity with an antiseptic solution, the wound was brought together with catgut sutures, a small opening being left at the bottom of the wound for the insertion of a small gauze drain. The foot, ankle and leg were encased in plaster of Paris dressing and a window made in the cast over the wound. The drain was removed in a few days and healing promptly followed without suppuration. The cast was allowed to remain on for about six weeks, and as the articulation of the astragalus with the malleoli had not been interefered with, no anchylosis occurred, but good motion at the ankle followed; the patient, when last seen using his foot with ease and comfort.

Cases of subastragaloid dislocation fail-

*Read before the Tri-State Medical Association of the Carolinas and Virginia, at Danville, Va., Feb. 24, 1904.

ing to be reduced by extension and manipulation, or by tetonomy, or by open operation, and, especially, if the dislocation be compound, are to be treated by excision of the bone under antiseptic precautions, just as would be called for in cases of irreducible dislocation of the astragalus.

717 E. Franklin Street.

Etiology, Diagnosis and Treatment of Suppurative Inflammation of the Maxillary Sinus.

By H. H. Briggs, M. A., M. D., Asheville, N. C., Ophthalmologist and Oto-laryngologist to the Mission Hospital, Asheville, and Clarence Barker Memorial Hospital, Biltmore. Member of the American Medical Association.

The maxillary sinus was first described by Nathaniel Highmore in 1651. Later, Mesbom, Cowper and Drake began rational treatment of its disease, but it is only of recent years that much attention has been directed to its pathological conditions.

The clinical anatomy must be familiar before one can readily appreciate some of the predisposing and direct causes of infection of the sinus. The development of the sinus begins at the fourth month of gestation by an invagination of the lining membrane of the nose, from the hiatus semilnaris, into the body of the maxilla. The dental organs occupy the greatest portion of the bone from the time of this invagination to the eruption of the permanent teeth. Resorption of the cancellated portion of the bone continues to progress through life until the outer walls in old age are very thin; and in some cases the roots of the premolar teeth have lost their lamina of bone and are covered only by muco-periostium.

The sinus, at first sphenoidal in shape eventually becomes pyramidal. The triangular floor is uneven on account of septa and conical elevations over the roots of the teeth, and this more marked in the white than in the negro race. The anterior wall is nearly square and smooth, with a depression for the passage of the infraorbital vessels and nerve. Its inner surface contains the anterior dental canal. The outer wall is somewhat triangular and concave and may extend into the malar bone. It contains the canals for vessels and nerves supplying the molars. The posterior wall is cylindrical in shape, with the concavity inward. The superior wall is triangular and horizontal. Its junction with the inner wall may be on a level with its middle portion or it may slant up and intersect near the center of the inner obital wall. Through this wall passes the canal for the infraorbital vessels and nerve. It continues forward on the posterior orbital floor and is lost in the middle of the floor in the infraorbital canal, which in some cases dips so deeply that it becomes tubular, passing diagonally through the sinus with an open space above the tube; a point to be remembered in trephining the anterior wall and in curetting the sinus. Occasionally there is found an infraorbital sinus or pocket made by a lamina of bone extending out on either side of the tubular canal. The internal or nasal wall is quadrangular, vertical and slightly convex in the typical skull. The sinus communicates with the nose through through the ostium maxillare, in the middle meatus. The hiatus semi-lunaris, named by Zuckerkande extends from the frontal sinus downward and backward to and through the middle meatus, being nearly horizontal posterially where it terminates at the ostium maxillare. Its inner boundary, falciform in shape, is the unicinate process of the ethmoid with membranous tissue forming a valve to the opening of the maxillary sinus and it is said that a sound cannot be passed through the ostium maxillare in the normal condition.

Dr. Fillebrowne thinks that "the infundibulum (or hiatus semilunaris)" instead of terminating directly in the middle meatus continues as a half-tube, this half-tube terminating directly in the foramen of the maxillary sinus." In seven out of eight specimens there was a fold of the mucous membrane which served as a continuation of the unciform and reached upward covering the foramen and forming a pocket which effectually prevented any secretion from the frontal sinus getting into the meatus until the antrum and pocket were full to overflowing. The openings from the anterior and middle ethmoidal cells and the frontal sinus are in the hiatus semilunaris.

If the anatomal relations above given are true, the maxillary sinus is the reservoir into which the secretions, both normal and pathological, of the frontal sinus, and the anterior and middle ethmoidal cells empty. Any inflammatory condition of the nasal chamber which causes turgescence of the mucous membrane to the extent of occluding the nostril, as often happens in coryza and influenza and the infectious diseases, would cause a complete closure of the ostium maxillare while the excessive secretions from the accessory sinuses may fill the antrum and cause mucous engorgement.

After trepining through the ciliary ridge the writer, in trying to pass a probe from the frontal sius down through the infundi-

bulum, has noticed that unless the probe is bent toward the median line it tends to pass into the antrum. There is, therefore, in the great majority of cases of infection of the frontal sinus and ethmoidal cells a similar condition of the maxillary sinus.

Suppurative inflammation of the maxillary sinus is very common, far more so than is generally supposed. The majority of the so-called incurable cases of othropic rhinitis have as complications, if not as cause, infection of the maxillary or some other accessory sinus. It is more common in the lower classes of society, and especially in those who give little care to the teeth. The proof of this can be found in any of the large surgical clinics, free dispensaries and hospitals in the large cities.

The causes of suppuration of the maxillary sinus generally arise from one of the following local conditions:: catarrhal affections; diseases of the teeth; presence of foreign bodies; traumatic injuries. Climatic influences play an important part, especially a changeable one whose hygroscopic variations are great. The number of cases of suppurative inflammation of the antrum is nearly in direct proportion to the number of cases of catarrh in any community, for, by far the greater number of cases is caused by extension along the mucous membrane of the nose and the other accessory sinuses, than from the teeth as was formerly supposed. Cryer, professor of oral surgery in the University of Pennsylvania, believes that only twenty-five per cent. of cases are of dental origin. Kyle, of Philadelphia, thinks fifty per cent. are due to the same cause. It was formerly believed that the great majority of cases were from dental origin, because physicians failed to diagnose the trouble and dentists found it in extracting offending teeth, more by accident than otherwise. Talbot, of Chicago, examining three thousand skulls, making six thousand antra, found twenty-one per cent. with abscessed molar teeth and of this number six per cent. had discharged into the antrum.

A factor, which in my opinion, often assists in conveying infection not only to the antrum, but to the other accessory sinuses and to the middle ear especially, is the malpractice of throwing a spray through the nostrils forced by air under a high pressure. To say the least, it is not even an effectual method of cleansing the nasal chamber, since the current affects only the portions which are in a direct line with the course of the spray. If the direction of the spray is toward the middle meatus, as is usually the case, the middle turbinate may, by its peculiar shape, assist in concentrating the force at the ostium, and the secretions thus driven into the antrum may cause a more disastrous condition than is present in the nasal chambers.

A similar ethiological factor is the common habit of compressing the nose and by blowing force the secretions out. Those who practice this usually bring into action the thoracic and abdominal muscles, producing the greatest possible expiratory force and compressing the nares until the internal pressure has distended the parts to the utmost, then, with sudden release of the nares, the expulsion brings forth the pent up secretion. In order to determine the increase in internal atmospheric pressure sustained under such circumstances and the consequent tendency of forcing secretions into the antrum, the author made a number of experiments, determining the amount of pressure the normal respiratory tract would sustain. A manometer was placed in one nostril and the other nostril compressed, as in using the Politzer bag, and the patient asked to blow the nose as much as possible. The monometer was thus used in the mouth and in artificial openings into the antrum (after operation). These experiments showed that the average person could sustain a pressure of $1\frac{3}{4}$ pounds, which means that the respiratory tract is capable of sustaining only this amount of pressure. According to Mariott's law the volume of any gas varies inversely with the pressure. One volume of air under fourteen pounds pressure would become one-half volume under twenty-eight pounds pressure. The volume of the antrum varies from eight to forty-five c. c. If we take twenty c. c. as the average, we would find that the air occupying the twenty c. c. under the existing atmospheric pressure would occupy—

$$\frac{14}{14-1\frac{3}{4}} \times 20 \text{ equals } 17\tfrac{1}{2} \text{ c. c.}$$

with the result that the $2\frac{1}{2}$ c. c. space would be filled with the air from the nasal chamber and in so doing must carry with it any secretion, pus and infection which may occupy the region of the ostium at the time.

Atrophic rhinitis may invade the antrum, form adherent crusts and leave a sclerosed membrane, secreting a semi-purulent matter.

The early stage of polypoid degeneration may be considered a watery edema which may return to the normal state, but it often becomes pedunculated and destroying the function of the muco-periostium soon causes a muco-purulent secretion.

Nasal polypi and deflection of the septum may close the ostium and lead to sup-

puration. Antral polypi may develop to such an extent as to cause absorption of the nasal wall near the ostium and present in the nose, thus causing the same condition.

The lesions of the teeth which may be classed as active causes are (*a*) devitalized pulps; (*b*) alveolar abscesses; (*c*) malposed teeth. The escape of the liquified and putrescent tissue and noxious gasses through the root of a tooth which perforates the floor of the sinus may give rise to septic inflammation of the lining membrane of the cavity without giving any evidences of the real cause of the trouble other than slight discoloration of the tooth. Such a tooth will not respond to the faradic current nor will it transmit light. Devitalized pulps, without surgical interference, usually result in alveolar abscesses, and the point of least resistance is usually toward the antrum.

Malposed teeth are often found in antral abscesses.

Of the foreign bodies the roots of teeth are the most common, having slipped from forceps. Fragments of bone resulting from extraction, portions of lead, food through artificial openings made in treatment of pre-existing diseased conditions and antral tubes, are found.

Of the traumatic injuries may be mentioned gun-shot wounds, fracture and comminution of the maxillary bone, especially compound fractures.

Impairment of the general economy, cachetic conditions, diathetic strain, particularly tuberculosis, are often noticed in patients suffering from empyema of the antrum. The abuse of certain drugs, especially mercury, exerts a predisposing influence. Division of the fifth nerve is said to be a factor. Streptococci, staphylococci, influenza bacilli, and the pneumococcus of Friedlander, are often found. In one case, Douglass, of New York, found the diplococcus of meningitis alone. This might explain how there may be idiopathic cases of meningitis, the infection traveling through the ethmoid.

The most important of the subjective symptoms in the diagnosis of empyema of the antrum is that of a unilateral fetid purulent discharge from the nose often accompanied by neuralgic pains, the discharge increased by certain positions of the head as when the head is bent forward and to the opposite side. In some cases the symptoms are so obscure as to suggest nothing more than nasal hypertrophies or polypyi. In case the ostium maxillare is closed the pain from the pent up discharge with the accompanying swelling of the surrounding tissues can hardly be mistaken for any thing else. The most characteristic sign discovered by inspection is the flow of pus from the middle meatus, giving a foul odor quite different from that of fetid catarrh and slowly or rapidly replaced when wiped away. Turning the head to the opposite side, pressure over the antrum and Politzerization increase the flow. Pus frequently under the middle turbinate, as above stated, may be from the frontal sinus, anterior and middle ethmoidal cells or from the antrum. Suppuration of either two or more of the sinuses may co-exist. Usually the etiology, the subjective symptoms, the influence that different positions of the head has on the flow of pus together with the valuable aid of transillumination will decide the diagnosis.

Transillumination is one of the most valuable and yet at times a misleading aid to diagnosis. A three to six volt electric light, the excessive heat from which is prevented by a glass dome, is placed a short distance back of the incisor teeth in the median line and on either side. The room must be as dark as possible. The normal face will show a pink glow in the region of the cheeks with dark shadows above and a similar glow in the infraorbital region, and under favorable conditions the pupils will appear as faintly lighted disks. The two sides should appear equally illuminated. The patient should perceive the light equally brilliant in the two eyes, providing he has no ocular defect, yet it is hard to locate the subjective sensation of light sufficiently to distinguish in which eye it is perceived. If there is difference in the illumination on the two sides it does not necessarily follow that there is suppuration since the thickening of the bony walls or asymetry of the maxilla varying the size of the antra, chronic hypertraphy of the antral mucous membrane accompanying a similar condition of the nose, antral polypi and mucous engorgement may cause such difference; but when marked difference is present it is sufficient reason for calling to hand all the other diagnostic methods. The umbra at the lower border of the orbit is of most diagnostic value as there may be a certain degree of illumination of the other parts with a certain amount of pathological condition. The maxillæ of women transmit light better than those in men, due to the difference in thickness of bone. A dental plate may completely obstruct the light. Taken alone transillumination must not be relied on but it is of great importance in confirming the diagnosis of empyema, and may lead one in obscure cases to apply other methods which will lead to a diagnosis.

Probing the antrum may cause a flow of pus which cannot be otherwise induced and carious areas of bone may be found. The probe should not be larger than one m.m. in thickness. It should be bent at an angle of 145 degrees, the bent extremity about six m.m. in length. The probe should pass back under the middle turbinate, point up, to the region of the osteum, when it should be turned to an angle of from ninety to a hundred and thirty-five degrees to the vertical and by careful manipulation it may be made to enter the ostium in about two thirds of the cases. The uncinate process is a land mark— the sensation of the probe, hooked behind which is often had. A very small canula may be inserted in the same way and air forced through may cause a flow of pus or irrigation may be employed. In cases where antral empyema is susptected and where the ostium is occluded a curved hollow needle may be passed through the inferior meatus back of the middle portion and aspiration and injections made. Hydrogen peroxide should not be employed unless there is an ample opening for the discharge of gas. One should remember that the antrum may be divided by septa into pockets or chambers, one or more of which may be filled with pus.

When strong evidence of epyema is present and when ethmoiditis and frontal sinusitis can be eliminated it is justifiable to remove a diseased tooth at the floor of the antrum and drill through the alveolar process. Tertiary syphilis may cause ulcers and necrosis on both sides of the nasal chamber and a foul discharge in common with empyema, but it seldom causes the latter. Empyema of antrum often accompanies atrophis rhinitis, and in many cases is an ethiologic factor. Many of the supposed incurable cases of fetid catarrh are kept going by a discharge from the antrum. The discharge from the sphenoidal sinus is found in the superior meatus, and accumulates in the naso-pharynx. Antral tumors may cause empyema, but usually first distend the antral walls.

The many plans of procedure in the treatment of empyema of the antrum is proof of the difficulty in establishing a cure and that no one method can be adopted for every case. For the successful treatment three conditions must be secured: first, the removal of the cause; second, the complete evacuation of the contents of the antrum, and third, the establishment of perfect drainage. Failure to affect any one or more of these conditions is the principal cause of unsuccess. Each case should be referred to a competent dentist and the condition of the adjacent teeth ascertained. This is important, even if the infection is of nasal origin, since necrosis of the floor may have affected the alveolar process and roots of teeth which may appear perfectly normal except to the experienced dentist. All diseased teeth and roots on the affected side should be removed, all polypi, hypertrophies and abnormal thickenings of the nasal chambers should be removed and the parts rendered as nearly normal as possible; especially must this be effected in the region of the ostium maxillare. If frontal or ethmoidal sinusitis exists they should receive first attention. In recent cases and in those where the mucous covering of the antrum has suffered little pathological change or where the antrum has been recently filled with pus from the neighboring accessory sinuses, it may be hoped that the condition may be relieved without a radical operation through the natural opening. In most cases the anterior end of the middle turbinate must be removed to a point beyond the ostium. This is best done with nasal scissors and cold snare. The turbinate is severed near the nasal wall and the portion thus cut loose removed with a snare. This exposes the infundibulum. The projecting part of the hypertrophied processus uncinatus is then cut away with the scissors and any hypertrophic masses removed with the nasal punch forceps. The natural opening may be enlarged or an artificial opening effected with a curved sharp bistory or the electical cautery Aspiration and irrigation may be accomplished by means of a sliver canula and syringe. The above procedure is usually necessary, even in those cases, which are by far the greatest in number, where a more radical operation is necessary.

Since the mucous membrane is extremely delicate and sensative strong solutions should be avoided. Hot normal salt solution, one per cent. boric acid, one-third of one per cent. zinc chloride, or 1 to 15,000 potassium permanginate solution will usually suffice. Solutions of carbolic acid and bi-chloride of mercury should be avoided, except, that, undiluted carbolic acid followed with alcohol may be applied with advantage to the entire cavity in necrosed cases after curettment.

By far the greater number of cases are obstinate, and require a mouth opening. Some authorities still hold to the method of opening through the inferior meatus rather than through the mouth, that they may be free from after infection from the mouth. The objection to this method is the difficulty of breaking down bony septa or of curetting the sinus when necessary.

The method should be seldom employed except in mucous engorgement.

Before deciding on the location of the opening a thorough study of the bony anatomy of the case at hand should be made. There is probably no part of the human anatomy subject to so great variations as the maxillæ and antra. Not only do they differ in different individuals but the two antra are often quite different in the same. A study of the relations between the nasal wall, the hard palate, the thickness and depth of the alveolar process and the external antral walls will aid us in determining the size and shape of the particular antrum. In some cases the alveolar process is directly under the nasal floor, in which case a vertical opening through the alveolus would penetrate the nasal chamber. Again, the alveolar process may be so deep as to render curetting through an opening made through a tooth socket impracticable. But the selection of an opening depends not only on the bony anatomy but more on the condition of the teeth and alveolar process. If the suppuration is from dental disease, the diseased tooth or teeth with the necrosed bone should be removed and the opening extended on into the sinus. If the teeth are sound the opening may be made through the canine fossa, in front of the molar ridge or just above and between the buccal roots of the first and second molars. Openings through these parts have the advantage of being less liable to admit particles of food into the sinus since the cheek acts as a valve against same. The writer prefers opening through the canine fossa, as it renders curetting the sinus easier.

The pointed drill driven by a surgical engine is by far the best method of operating. With it the sense of touch is nearly as perfect as with a probe; it can be perfectly controlled and is the most rapid cutting instrument available. The opening should be at least 6m.m., and longer if the walls require curetting. In opening through the canine fossa the entire anterior wall may, if necessary be removed, care being taken not to wound the infraorbital vessels. The hemorrhage is often profuse, so much so that the antrum must be packed. Gauze wet in hydrogen peroxide is usually effective. The antrum must be cleared of pus, debris, polypi, and any necrotic areas curetted. Some men close the opening, but to do this free drainage must be had, either above or below the inferior turbinate. The better way is to leave the opening, pack with iodoform gauze changed twice in twenty-four hours for a few days, afterwards, once a day, the cavity being irrigated as above indicated. Antrum tubes and obturators must be utilized to maintain an opening until the discharge ceases.

Obliteration of the antrum is impossible if the mouth opening is closed.

Acute cases may be discharged in a few weeks; but chronic cases must be treated for months and often have to be irrigated for years. The patient becomes quite dextrous in treating himself and his co-operation is necessary to sucess in every case.

Radiotherapy for Cancer and Other Diseases.

By Dr. W. W. McKenzie, Salisbury, N. C.

In the field of physical science numerous inventions and discoveries have been made in recent years, which have attracted the attention of many members of the medical profession. In the therapentius of the profession many discoveries and inventions in the allied sciences have been proved to be invaluable adjunets. They are too numerous to mention here. However, there is one discovery that has attracted more attention than any other made within the last three centuries, and it is with its therapentis uses that I propose dealing with in this paper.

We are all aware that this discovery was made by Rœtengen—accidentally—who is now famous the world over for his wonderful researches in the "scientific field of mysteries."

Soon after the rays had attained a permanent place in the field of diagnosis, it was observed that accidental dermatitis was invariably set up. This suggested to the minds of the observing and careful investigators the possibility of the use of the rays in the treatment of various pathological conditions. Experiments were at once begun and the results have been very satisfactory. We are of the opinion that in the X-rays we have an agent which has proved to be of undoubted value in the permanent cure of malignant diseases.

The manner in which the X-rays act upon the diseased tissues has not as yet been clearly determined. When the therapeutic value of the rays was first observed it was believed that the action was of a bactericidal nature. This theory, however, was soon abandoned. The consensus of opinion now seems to be that instead of destroying the micro-organism, the X-ray stimulates them to further growth and reporduction. Furthermore, it has frequently been shown that good results are obtined by the application of the X-rays to such pathological lesions as are absolutely free from bateria, so say some of the most prominent pathologists and bacteriologists.

The effect of the rays has by some been attributed to a corrosive action of delicate platinum particles thrown out from the anodal surface.

Tesla believes it to be due to the generation of ozone in the diseased tissue. Schiff says that the curative power is due, not to the X-rays, but instead to electrical waves given off from the tube.

Loudon thinks it possible that it is the influence the rays have in retarding osmocis that the secret of this biological and therapeutic action lies. By retarding the osmotic processes throughout the system they cause changes in metabolism which must influence the nutrition of the tissues.

A consideration of the entire subject of radiotherapy in the present stage of development seems to have no room for doubt that we have in it a most valuable addition to the means at our comand for combatting diseases. One of the greatest values of the method lies in the fact that it is applicable to certain groups of diseases which have hitherto been classed among the most intractable with which we have to deal. This applies not only to its use in malignant diseases, but to its use in certain less grave affections which have been the trial and bane of dermatology. It is a valuable addition to the methods at our command for healing hypertrichosis, acne and sycosis and that in itself is no small gain to dermatology. Its use in tinea tonsurans and favus is less well established, but is unquestionably worthy of persistent trial. In the treatment of psoaiasis, lichen plamn there seems good reason to believe that the method has a distinct field of usefulness. Its value in lupus vulgaris is unquestionable. Its value in lupus erythematosa is not well established. This method and Finsen's method of treating lupus with ultra violet light has inaugurated a new period in the treatment of that most intractable and distressing disease.

Carcinomata can be made to disappear and can be replaced by healthy tissue. This established not only clinicaly but also microscopically; such a disappearance of a malignant growth is a new fact. The theoretical advantages which the method offers are:

1. It is painless; it avoids the ordeal of operation.

2. Under proper conditions it destroys diseased tissues, but leaves the healthy tissues in its place.

3. It leaves small scars.

4. It is not only painless but it usually has a marked anodyne effect in painful malignant diseases.

5. It has a field of usefulness in cases of which ordinary methods are impossible, because of the amount of destruction of tissue which complete removal would require. In other words, it is applicable to inoperable cases. In these cases the method has a very considerable number of not only brilliant but amazing results to its credit.

As to its effect upon malignant growth which involves the cavitics of the body, the standing of the method is not yet established. There are some facts which give us reason for encouragement in these cases. Pain can be controlled and there is reason to believe that in some cases malignant growths situated in the cavities of the body can be checked in their courses and perhaps reduced in size by applying the X-rays already at our command. In acne the rays are extremely valuable; the most brilliant results are obtained even in long standing cases. It is also of value in many cases of eczema, both in relieving the itching and in effecting a disappearance of eruption. The rays have proved of great benefit in recurrent vesicular eczema of the hands and feet. The rays will cure practically all patients having superficial cancer, and some with carcinoma of the integument. But the majority of deep-seated cutaneous and subcutaneous growhts do not so well. They may improve for a while and deceive both the patient and the doctor, but relapse, and subsequently begins to spread. Buccal epithelioma and deep seated epithelioma, involving the lip, had better be treated surgically and afterwards subjected to radiotherapy. Superficial epithelioma may be cured by many methods, but none gives such beautiful cosmetic results as the Roentgen rays.

At the annual meeting of the Medical Association of Greater New York, Dr. Brandth read a paper in which he reports encouraging results in the treatment of epilepsy by means of Roetgen rays:

He stated that in many instances the occurrence of the seizures was believed to depend upon the instability of the cellular brain elements, or an abnormal metabolium, and as it was accepted by many authorities that the X-rays stimulates the vital activity of protoplasm, it was upon the theory that the treatment was adopted. Naturally, he said, all cases of epilepsy are not amenable to it, as, for instance, those in which decided generative processes in the brain have set in. Radiographs, taken by himself, Dr. Branth demonstrated that part of the X-rays unquestionably pass through the skull, and he regarded it as fair to assume that more than twice the quantity pass through the middle of the brain, as in light the power diminishes by the square of the distance.

In his cases, three treatments per week are given, beginning with five mints exposure at fifteen inches distance. A hard, or high vacuum tube is employed and a different part of the skull is exposed at each sitting. In both grand and petit mal it has been observed that the seizeurs become lighter and of shorter duration, that the intervals become longer, and that if an attack occurred it was followed by shorter durationshird red it was followed by less prostration. In patients with six and eight seizeurs a day, after treatment has been taken for a few weks, intervals of two and three weeks were noted. The hair may drop out in areas, but it is certain to return in a stronger growth than before. A remarkably successful case was presented—that of a lad 14 years of age, who had not had a single seizure since the treatment was commenced and who had astonished his family and teachers by the extraordinary improvement he had made both mentally and physically.

The most beautiful theory and one most far-reaching in its application is that of Dr. Wm. Allan Pusey, Professor of Dermatology at the University of Illinois. His theory stated briefly is that the effect of the x-rays upon all living tissue is essentially distructive and inasmuch as the cells of pathological tissue have less vitality and resistive power than those of healthy tissue. Under the influence of x-rays pathological tissue undergoes degeneration and disappear first, before normal tissue.

Case No. I., Male, Age 60.—Epithelioma of upper lip in which the greater portion of lip was eaten and small part of flow of left nostril was also eaten away. Gums under upper lip also had become involved. After three months' treatment by the x-ray the entire surface had healed over and the deformity was very small. The entire surface was smooth and soft, except a small nodule on left side of face. This spot was evidently suspicious and should have been treated, but patient's poverty would not permit of his remaining longer in Salisbury.

No. II., Female, Age 48.—Epithelioma on left and right side of nose; all kinds of salve, curatives, etc., had been used by different parties from which patient received no benefit, but by treatment for only two and a half months—growth entirely disappeared.

No. III., Female, Age 26.—Lupus Vulgaris—long standing. This involved the whole of left cheek and left side of neck—complete recovery.

No. IV., Male, Age 70.—Epithelioma of right ear; one month's treatment entirely cured. No deformity.

No. V., Epithlioma of Nose, Female, Age 42.—Recovery in one month—small scar.

No. VI., Female, Negro, Age 48.—Epithelioma on forehead—two months treatment—recovery—small scar.

No. VII., Male, Age 26.—Scrofula deum—both hands and arms a masss of scales and pustular—one month's treatment—complete recovery.

No. VIII., Female, Age 43.—Epithelioma of back large size and on face—two months' treatment recovery.

No. IX., Female, Age 45.—Epithelioma of back—one month's treatment—recovery.

No. X., Female, Age 48.—Epithelioma of forehead 16 years standing. This extended from base of nose taking in almost the entire forehead and up into hair. The most offensive odor. It was wonderful to see how rapidly this ugly mass crumpled and disappeared. It only required three or four exposures to get entirely rid of the very offensive odor and in three months the mass disappeared leaving healthy tissues and a small scar. But she will never be entirely cured as a nodule developed on angle of lower jaw and thorax.

No. XI., Male Age 49.—Involving base of nose—eating through same and extending into ethmoid cavity and bone. He is improving and still under treatment. Prognosis good.

The Prevention of Tuberculosis.*

By Dr. George Brown, of Atlanta, Ga., Secretary of the American Anti-Tuberculosis League.

One million people, out of the ninety millions, who owe allegiance to the United States, are today suffering from some stage of tubercular diseases. At a glance such a statment almost staggers belief, but a careful compilation of statistics, which are available, and allowing a fair average condition of the same state of affairs to exist in places where the figures are not to be had, makes this a reasonable estimate.

One person in ninety is a fair proportion. I think anyone will agree, though the estimates vary from one in thirty-two to one in two hundred and fifty. The German estimate is that there is over one million in Germany suffering from this disease, and that there are one hundred thousand deaths annually from this cause.

Estimates for the United States show a much smaller ratio of people suffering from tuberculosis than one would find in the crowded countries of Europe.

*Read before Georgia State Medical Association, April 21st, 1904.

In our own State there are no available figures, that give us the exact number of people afflicted with this malady, though I am sure each of us find it far more prevalent than the laity suppose it to be. I suppose that the establishment of our splendid State Board of Health will tend to soon give us this information that will be reliable. I suppose to suggest to the next Legislature that a Tuberculosis Commission be appointed to report to that body the exact state of affairs concerning this disease in this State, in order to form a basis for future work in regard to suppressing this disease.

Now I will only take a small portion of your time in calling to your attention the ideas, which I wish to present in regard to the prevention of tuberculosis.

Three things are to be considered, and I will separate this paper into three heads accordingly:

First:—*The Patient.*
Second:—*The Doctor.*
Third:—*The State or Municipality.*

THE PATIENT.

Tuberculosis, as we all know, is caused by the tubercle-bacillus, which wast first pointed out by Dr. Koch, of Berlin.

This germ has to be introduced into the human system to be of danger to the individual. The most usual way of this being accomplished is by inhaling these germs, which have been thrown off by persons suffering with the disease in the form of sputa, which, drying, diffuses them in the air, and they are inhaled by others.

To be of danger, there must be a condition of the system of the person inhaling these germs, which make them susceptible to the effect of the minute creatures. If a grain of corn is planted in the earth, a certain amount of heat and moisture is necessary to the changes, which take place, and make that corn germinate. If these elements do not exist in the proper proportion, the grain of corn decays, and fails to germinate.

The same may be said of the human system. Each of us have inhaled millions of the germs of tuberculosis, but given a healthy mucous surface in the throat and lungs, and a healthy sound body, and their results amount to nothing. On the other hand, if the system is run down by a succession of ills too long to enumerate, or if there is a purely local diseased condition of the mucous membranes involved, these germs become dangerous, as this is the ideal condition necessary for their growth and propagation.

Most of people are absolutely without fear of cold, ordinary bronchitis, and la grippe, and all the kindred disorders, which usher in the condition, which too late they realize as being the dread scourge of humanity, which reaps such a bounteous harvest of the brightest and fairest of the youth of the world.

The history of 75 per cent. of tubercular diseases is the history of neglected colds.

The patient tells the well-worn story, which, alas! we all know so well—a cold contracted in some way, a resort to the usual home remedies for some time, varying from days to months, finally a consultation with their physician, the usual remedies taken with more or less regularity depending on the temperament of the patient, gradual loss of weight, etc., and all the usual symptoms, which follow in the wake of this condition. Passing from bad to worse, hopeful one day, depressed the next, usual resort to patent medicines, cough syrups, blood purifiers, and various tonics, and finally the realization that they are in danger, a hurried packing of trunks, and away for a change of climate. Result: Return home in a baggage car and six feet of earth in the family cemetery.

Naturally, the question arises: How is the result above mentioned to be avoided? Can this condition of affairs be changed? Can this patient be shown the way to a return to health and strength? Unfortunately, in about 90 per cent. of cases, where fully developed, it cannot be done. The old anthem still rings out—"Too late, too late!" This condition of affairs in its incipiency might have been avoided by a remedy, which can only be applied in some cases—a vigorous thorough course of rational scientific treatment under the advice of the proper medical attendant. I say "some cases" intentionally, for only about one-half of the patients a physician treats pay the slightest attention to his directions. Consequently results can only be expected from those cases, who are willing to follow the directions of their physicians. This state of affairs narrows it down to the two classes of patients, those, who will try to get well, and those, who will not. In a great many of the latter class of patients one thing must be considered, that is, the intelligence of the individual. The greater number of tubercular patients in Georgia today is among the negro race, a race characterized by an honorable member of this society, as the *"Most Tubercular in the World,"* and I take the liberty of adding the most devoid of either hygiene or prophylaxis. What disposition I would suggest to be made of these patients I will allude to in section third of this paper.

Now as to the first class of patients—those who have a chance or rather need a chance to get well. I have only one suggestion to make to these: Watch your general health, regard colds as being something more than "only a cold," and insist on your physician telling you what to do, and what not to do, and follow his directions. Further than this a patient cannot go.

Second:

THE DOCTOR.

In as few words as possible let me insist on the doctor being fair and square with his patient. Tell them the truth, and the whole truth, and nothing but the truth. Do not under any circumstances hold out false hopes to these much-to-be-pitied patients. If there is the slightest suspicion of a tubercular infection, have a heart-to-heart talk with your patient, and tell him his exact condition, or, if not certain of the diagnosis, tell him your suspicions. Give him a chance for his life. Even the most hardened criminals have that given them, but I have seen a throng of these patients, who had not been treated half as fair as one of these criminals. If you err in your diagnosis, err on the safe side. You can do no harm to the patient by this means, but you might do him infinite harm by erring on the other side. Do not allow relatives to bring you patients to examine, and insist on your telling the patient's condition only to them. Of course I do not mean to have you tell a patient that he is in such and such a stage of tuberculosis, and that there is no hope for him. I fully realize, as does any intelligent physician, that individuals must be treated as the temperament requires. I fully realize that, when you take away hope from a mortal, you deprive him of everything. But there is a way to tell these patients without simply frightening them to death. Get their confidence, and gradually put the matter clerly before them.

If you send them away, know something of the climate that you send them to. Do not simply say "Go to Florida, or Colorado, or California, or Arizona." Surely, if you know nothing of the climatic effect, what is your patient supposed to know? Some cases, what will improve in Arizona, would not be benefited in Florida.

Dr. Berney Yeo sums up the climatic situation as follows. Patients are sent away:

(a) "To arrest catarrhal conditions of the air passages.

(b) To improve nervous and circulatory tone.

(c) To increase the activity of the digestive functions, and thus stimulate nutrition by promoting the desire and increasing the power to take exercise.

(d) To raise the *moral* tone—by no means an unimportant matter—by affording a clear, bright and cheerful environment.

(e) To diminish, my its asepticity, bacterial activity."

He also adds, in reply to the query: "How far can cases be grouped for treatment in certain climates?"

1) That cases seen in the very commencement of the disease, and who are in otherwise good health, may be permitted a certain amount of choice in the selection of a climate, provided it allows of many hours being spent daily in the open air, and that they are placed under admittedly hygienic conditions.

(2) For progressive febrile cases we should enjoin repose in bed or on a couch at home, in the best conditions practicable for the free access of pure air and sunshine to their apartments.

(3) For the advanced cases, home is best, if the conditions of nome life are favorable, or the warm marine climates with cheerful surroundings, if home life is unfavorable, or change is urgently desired.

(4) For catarrhal cases soothing climates are best (Arizona and Southern California).

(5) For rheumatic or gouty cases of the febroid or pleurogenic type, any marine climates or the dessert climate are most suitable.

(6) For the so-called "scrofulous cases," if free from catarrh, fairly bracing marine climates should be prescribed.

(7) For the most other moderately advanced cases, with the limitations already mentioned, the climate of the high mountains above the cloud belt is the most curative.

(8) I have not made a "hemorrhagic" group because I do not think it would be a natural one Every hemorrhagic case must be, in my opinion, considered apart, and, if I may be permitted the phrase, dealt with "on its own merits."

If I was in general practice, I would simply take stock of each family, that I had under my care, and try to pick out those, who show the slightest tendency in this direction, and warn them of their danger, and take the time to explain their condition fully to them. I would make this a duty of my life to see if I could not forestall some of these cases. I remember a year or two ago the children of an eminent gynecologist in my city were sent to my office for treatment for severe colds, which both had contracted in the early fall months. Follow-

ing a rule adopted years ago with all children, who are sent me for such cause, I put them on cod-liver oil with directions to keep it up all winter. After a few days' treatment I saw them no more. The wife of this physician stated to me the following summer that she "would never get through thanking me for the suggestion, that her children got through the winter without a case of cold even."

If this line of treatment, or something similar was followed both by adults and children, who have the slightest tendency toward development of tubercular troubles, the death-rate in Georgia would be decreased from deaths caused by this disease 33 per cent. in five years. A thorough course of cod-liver oil, iron, quinine and strychnine, or the hypophosphites, taken at intervals from November until April, would add untold years to numbers of this class of mortals, who do not know what they need to fortify themselves against attacks, which they must meet in life.

The average doctor reasons: This is not my affair. I am not going to bother people, who do not bother me. I am not my brother's keeper, except when he calls on me in actual distress. Bu I reason that a family physician is a friend and a physician. He is nearer and dearer to his patients than a specialist can ever hope to be. Is he not the keeper of the family secrets, the arbiter of their destinies, as it were? It is his province to follow them in this rugged journey we call "life" from the beginning to the end. Should he then, above all others, not be the one to tell them of these things; to warn them to avoid all risks and dangers? How much he is to do of this each man must be his own judge. No good physician begrudges anything that will benefit his flock of patients. Does he not say, with good true-hearted old Sir Thomas Browne, who is sleeping his long sleep these last two centuries in the old English churchyard, which witnessed, as he says, the "Drums and tramplings of three conquests:"

"I do not secretly implore and wish for plagues, and rejoice at famines. I rejoice not at unwholesome springs, nor unreasonable winters; my prayer goes with the husbandman's; I desire everything in its proper season, that neither men nor the times be put out of temper. Let me be sick myself, if sometimes the malady of my patient be not a disease unto me. I desire rather to cure his infirmities than my own necessities. When I do him no good, methinks it is scarce honest gain; though I confess 'tis but the worthy salary of our well-intended endeavors. I am not only ashamed, but heartily sorry, that that, besides death, there are diseases incurable; yet not for my own sake, or that they be beyond my art, but for the general cause and sake of humanity, whose common cause I apprehend as mine own."

As to the treatment of the incipient or other stages of consumption I shall not speak. Your text-books and experience alone can tell you what to do. The subject is one too far-reaching to mention in the limits of a paper like this.

THE STATE OR MUNICIPALITY.

I wish to go on record here in demanding that tubercular patients, who are unable to work and support themselves, and who have no means, be made the wards of the State, and be given at the expense of the State the proper care and attention.

I want to go on record in demanding also that the same laws, that apply to smallpox and other contagious diseases, be applied to tubercular patients.

At the first glance the two propositions may seem visionary, but time and years will prove that both of these demands will and shall be met.

As to the first demand: Common humanity will in time care for all those, who cannot care for themselves. It is an unwritten law in the minds and hearts of good men that the strong should care for the weak and helpless of our land. Hence the sanitariums for the insane, the hospitals for the sick, supported by State and municipality.

But to do this, to make these people wards of the State, needs the assistance of the law-makers of the State, forced by a sentiment from the masses of the people. To educate the people to what is necessary to be done should be the aim of every physician in this country.

The Anti-Tuberculosis League, of which I have the honor to be secretary, is being organized on the plan mentioned above. It is only a question of time until we have leagues in every State and municipality, which will disseminate these principles from the Atlantic to the Pacific. I have enrolled over 1,000 of the most representative physicians of the United States and Canada since August 1903, and consider the work only in an embryonic stage.

In demanding the enactment of laws, isolating consumptives, or placing them under more strict surveillance, we wish for a means only to force action on the former proposition. Any and all agitation along this line tends to help in this stage of edu-

cational evolution, through which we are passing.

The refusal of first-class hotels to furnish accommodations to tubercular patients will be followed by those of other grades until finally these people will be debarred from places of public accommodation. This will of course be a hardship on many, but will result in great good to a great many more in forcing some one to take care of these people. We will then have sanitariums and open air camps, etc., as are being established in so many parts of the country.

Radical changes in the habits and customs of a nation must come slowly. Great masses are unwieldly, and require great work to move them. But as water dripping daily wears away the largest stone, so in time will the work of enlightening this great country proceed until we will stand, as we are bound to do, as not only the greatest of all nations of this earth, but as the kindest and as the most humane.

Some Dangers to the Public Health of Georgia Needing Control by Legislation.*

By R. M. Harbin, M. D., Rome, Ga., Member of State Board.

Georgia with her population of two and a quarter million justly deserves the honor of being the Empire State of the South, and we have many natural advantages that make conditions favorable to being one of the most healthful States in the Union. Our equable climate is marked by few extremes, having a mean annual temperature of 65 and an average rainfall of 46 inches. While modern sanitation has been more or less neglected in this State it stands among the first in having a very low mortality rate. The mortality rate for the United States is estimated about 17, while that of Georgia may be placed at 12.6, 11 being for the white and 13 for the negro, the population of the latter being slightly less than former.

The number of deaths from pneumonia may be taken as a fair index of the vicissitudes of any climate and this State has a rate of 97 per 1,000 deaths, while New York has a rate of 126 and Massachusetts 105. The latter rates are based almost entirely on a white population and excluding the negro rate (103) in Georgia we have a rate of 89. Atlanta is suspicious for having a low rate (79) from pneumonia being 52 for the white, while New York City has a rate of 159.

A problem for sanitation is furnished by the negro because of his ignorance, poverty and dissipation.

The greater number of deaths in Georgia are due to disease that are more or less preventible, and if we had the sanitary regime of some other states our lowered mortality rate would excite general comment.

Educational sanitary laws by the State will accomplish more good than mandatory measures, and when people are taught the nature and manner of prevention of disease they are only too willing to co-operate with boards of health. The State Board of Health of Michigan furnishes a striking example of the good there can be accomplished by boards of health. In this instance two 3-year periods at ten year intervals are taken for comparison and the results are recorded.

The morbidity of the diseases mentioned show the following rate of decrease: Rheumatism, 4 per cent.; pneumonia, 36 per cent.; consumption, 57 per cent.; diphtheria, 50 per cent.; intermittent fever, 60 per cent.; remittent fevers, 60 per cent.; typhoid malarial fever, 92 per cent; typhoid fever, 20 per cent.; scarlet fever, 33 per cent. While these results are not entirely due to the State Board of Health, it must be conceded that the latter is the chief factor in the cause of reduction.

To apply the same argument to the Georgia State Board of Health we would accomplish in ten years an annual reduction of deaths approximately 4,000, which would give a death rate of less than 10 per 1,000 population, and Georgia would have the lowest death rate of any State in the Union. These calculations are not a matter of idle speculation for even greater results should be expected, as there are many advantages in having an equable climate and other favorable natural conditions. No money is more wisely spent by a State than that for its public health and better sanitary laws and fewer deaths progress *pari passu* with increase of population and wealth.

A Registration of Vital Statistics law is among the first needs of the public health of the State and educates the public as to the necessity of sanitation and reveals the prevalence of diseases that go unnoticed. Such a law facilitates the efficient work of boards of health.

Where registrations of vital statistics laws have been in force the death rate has decreased from 19.6 to 17.8 during the last census decade, and in cities the decrease is greater, especially from infectious diseases.

A Local Board of Health law is necessary to the effective work of the State Board of Health.

* Read at 55th Annual Meeting of the Medical Association of Georgia, at Macon, April 20th, 1904.

Tuberculosis.—The management of infectious diseases occupies the greater part of the field of sanitation, and the most important of this class is tuberculosis. Modern investigation has done much to elucidate the nature, cause and manner of propagation and prevention of disease.

In cities where sanitary laws are more effective tuberculosis has shown a greater rate of decrease during the last census decade than in other sections where conditions are less favorable for the prevalence of the disease. It has been found that 50 per cent. of the incipient cases can be cured. In Georgia, during the last census year, there were 2,657 deaths from tuberculosis, 981 occurring among the white, 1,671 among the colored. The death rate for the white is half that of New York State. The public should be taught that tuberculosis is a contagious disease where disinfection is lacking and that every case is the result of a previous case. If recognized and reported early the number of deaths in Georgia ought to be reduced 50 per cent. There should be a law compelling the report of all cases of tuberculosis and the appropriation of sufficient funds to disinfect the premises of every fatal case, and no house that has contained a fatal case should be offered for rent until disinfection has been carried out and certified. While it is more or less impracticable among the poor and colored, much could be accomplished in lessening the ravages of the disease. The passage of such a law could educate the public to realize the nature of the disease and the importance of disintection.

Typhoid Fever is next in the list of infection diseases, and in 1900 claimed 1,585 deaths in Georgia, 942 occurring in the white, 643 in the colored population. If what we eat and drink were pure there would be no typhoid fever, and drinking water is the great source of infection, and that from wells furnish the greater danger. I have observed 107 cases in which 89 drank well and 18 drank hydrant water, and in the locality where this observation was made the greater part of the population is dependent on hydrant water for drinking purposes.

From a mercenary standpoint probably no disease involves as much expense for the care and management as typhoid fever. Estimating the mortality rate at 12 per cent., 12,670 cases may be assumed to occur in this State each year. Being a disease of early adult life all cases may be assumed to be wage-earners at a low estimate of $1.00 per day. The average loss of time would be about three months and the loss of wages would aggregate $142,650. Counting the same amount for nursing these cases would make a loss of $285,300. Estimating the cost of each funeral at $50 and the average the loss of a life at $1,000 it would aggregate a total of $1,962,250. Adding the cost of medical attention would make in round numbers a per capita tax of $1.00 on each inhabitant. Certainly a small per cent of this sum would insure purity of drinking water. The use of water from any public supply, well or spring that has been condemned by the local or State Board of Health should be prohibited by law.

Smallpox has increased in the United States during the last census decade 1,000 per cent. 3,454 deaths occurring in 1900. No disease interrupts public traffic more seriously than smallpox and more stringent legislation is needed, especially in the management of ambulatory cases.

This greater prevalence is greatly due to a large increase of an unvaccinated population. The benefits of vaccination need no argument. Dr. Voight, (*N. Y. Med. Rec.*, Oct. 17, 1903) director of vaccination at Hamburg, has observed 12 deaths occurring from complications after the operation of a half million vaccinations and some of these deaths were due to pre-existing complications. He concludes that vaccination partially prevents the development of other zymotic diseases. During the recent Swansea epidemic in 14,000 vaccinations none took smallpox while there were 30 deaths in 300 cases of variola.

Vaccination should be made compulsory as a necessity and as an educational measure.

Infantile Diseases is a field of work needing the attention of the State. Nearly one-fourth of all deaths in Georgia occur in the first year, 2,720 occurring in the white, 3,066 in the colored. In no other part of public health is the intelligent laity more ignorant as to the proper manner of feeding infants. Much educational legislation could be effected. No servant who has any contagious or infectious diseases should be permitted to assume the care of children.

The sale of rubber tubes for nursing bottles should be prohibited by law.

In 1900 there were 819 deaths in this State from diphtheria and croup; 44 from scarlet fever; 201 from measles and 222 from whooping cough. Reporting those should be compulsory and proper means furnished for disinfection.

Hydrophobia should receive careful attention. The Georgia Pasteur Institue

and Laboratory reports 76 cases for one year, and untreated cases have a mortality of 25 per cent. The owner of a rabid animal or one that has been bitten by a rabid animal should be required to confine same or else be responsible for the dangers arising therefrom.

The question of dealing with *patent medicines* is an open one, while not an unmixed evil, it is one fraught with many dangers. In some countries it is unlawful to sell any medicine having a secret formula. Venders of abortifacient medicines advertised by another name should be punished by law. It should be a law that no patent medicine be offered for sale unless approved by a competent board of physicians, druggists and chemists who shall exercise censorship of all advertisements of this class. Many advertisements in the lay journals and even the religious press are immoral and render many sexual neurasthenics melancholic.

The faith cure so-called does much to spread the danger of infectious diseases. No one can deny that such fads may benefit hysterical affections. The treatment of infectious and contagious diseases by the faith cure should be prohibited.

Public performances of hypnotism upon minors is unlawful in Kansas and should be so in this State. The public exhibition of human monstrosities should be prevented. The means should be provided for by legislative enactment for the systematic investigation of adultered foods and drugs.

Marriage of the defective classes does more to deteriorate than the consanguineous would do, yet the latter is prevented by law. The defectives should be defined by law and made to include the insane, the epileptic and the congenital deaf mute.

All private maternity hospitals or any one boarding infants for pay should be made to register with the State Board of Health.

The care of the insane after conviction almost borders on barbarism, and such unfortunates are imprisoned as ordinary criminals, and many cases die in a cell from an acute mania, while waiting to be transported to the State sanitorium, which might otherwise be prevented by proper care and nursing. The law should be amended so as to provide medical attention and nursing in a private room.

More sanitary laws should be made to govern sleeping cars and other public conveyances. I have seen cases of diphtheria develop immediately after a railroad journey.

Multiple Sarcoma.

By Geo. W. Pressly, M. D., Charlotte.

The ordinary new growths of the connective tissue type are more or less rapidly fatal, but when they assume the multiple form, death is only a matter of a few weeks. Shattuck gives a case in which death occurred in four weeks and in none of the cases so far reported did the patient live more than one year after general involvement. When we consider the relation of these fleshy tumors to the blood current and their infiltrating method of development, the wonder is that there are not more cases with early fatal results. Claytor reports two cases in which the multiple tumors appeared in the subcutaneous tissue one dying in four months, the other in seven. In both these cases the disease was single for awhile before the multiple growths appeared.

The following case is reported as belonging to this rapidly fatal form of sarcoma. S. S., white, male, married, farmer, age 58; family history negative. He had been a large, strong and healthy man; a hard worker on farm and at saw mill; no previous sicknesss of any consequence. Some indigestion and constipation from irregular eating; would go all day when work was pressing without food and try to eat enough to make up. About the last of January, 1904, was taken suddenly ill with colicky pain in abdomen and numbness and pain down the legs. Both legs became very much swollen and the abdomen rapidly enlarged with continued coliky pains; bowels constipated with hard lumpy stools. Impaction was feared and brick catharis brought away a quantity of hard lumps, but gave no great relief. Continued to grow worse and was brought to St. Peter's Hospital on March 26.

Examination now showed a large, muscular man, very anxious to get well; fairly well nourished, good color, and suffering some at intervals. Abdomen much distended., the lower half with fluid, the upper half choked up with a large mass having a liver-like feel. A small bullet-shaped growth could be felt immediately under the skin to the right of the xiphoid tip. Urine normal; pulse 80; temperature 99; respiration 23; No swelling in limbs except right foot, which still showed some edema. After thoroughly cleaning out the bowels which took several days, an incision was made in the median line, under chloroform. About a gallon of straw-colored fluid was allowed to run out when it could be seen that the entire cavity was affected with multiple growths, varying in size from a pea to the double fist. They were all subperitoneal,

the visceral and posterior membrane being most affected. The parietal layer was only involved in two places in front, the growths being comparatively large, extending from the costal margin to the umbilical line. The growths were very soft and friable and there was no difficulty in pinching off a small one for examination. Wound was closed with through and through silkworm gut without drainage. Temporary relief was decided. On the seventh day after operation complained of severe pain in right foot, which in a few hours showed discoloration around the great toe. During the next 24 hours passed only 2½ ounces of urine, and that by catheter. The gangrene slowly extended for several days, affecting the entire foot to the ankle, at which point it stopped. Digestion gave out entirely and he gradually grew weaker and died on April 9th, 11 weeks from the first symptom of the disease.

Though Gwyn speaks in favor of examination of the ascitic exudate in abdominal disease, it was thought better to make an incision than to risk a trocar as the diagnosis could be made so much more satisfactorily and with hardly any more risk to the patient. The wound was completely healed in 8 days.

Of the treatment of such cases there is hardly anything to say, except that suspicious growths of all kinds should be removed while they are small and single. Certainly no operative procedure is worth while in the multiple form, except for diagnosis. Some powerful systemic remedy is indicated if we had it.

Doyen thinks he has found a serum which will be useful in rapidly growing tumors. He reports 126 cases treated with 21 cures, and 47 improved. According to Tuffier (5), however, the serum treatment is worthless, as it only produces a temporary phogocytosis, which arrests the growth for a very short time, and it grows all the faster afterwards. The X-ray does not hold out any hope in these rapid cases, and radium is only curative where the area is small and superficial. Kobner reports good results from large doses of arsenic hypodermically. He gave 9 drops of Fowler's solution to a girl 8 years old, and after 18 months the condition was much improved. But the matter is, we do not know much about the real cause of these growths, and until we do, the treatment will continue to be of little value to the patient.

Infection of the Newborn.

McHamill and Nicholson, (Archives of Pedriatrics) say that hæmorrhagic conditions in the newborn may in certain instances be due to some of the causes formerly held accountable for all such manifestation—*i. e*, birth trauma, fœtal malformations, asphyxia and syphilis. In the vast majority of instances, however, hæmorrhage may be considered as a symptom of infection.

Strong evidence in favor of the infectious nature of all such conditions as melena, Winckel's disease, etc., rests in the fact that they are observed almost exclusively in institutions and in epidemic form. The nature of the infection varies widely. In six cases six different micro organisms were isolated; viz., bacillus pyocyaneus, bacillus lactis ærogenes, colon bacillus, staphylococcus aureus, streptococcus and bacillus coli immobilis.

The origin of these infections, as has been said, occur most frequently in maternity hospitals, and it is possible that even "air infection" sometimes occurs. The mother's milk doubtless is responsible for a small percentage of cases.

The bath water of the infant is also a source of infection, where the use of the same water for the ablution of several infants results in infecting the water. The placing of infants in beds which have been previously occupied by infected infants has conveyed infection.

These infections may occur during, before or after labor. Most often they occur with the first week of life, but may be delayed to or beyond the fifteenth day. Any decided elevation of temperature should arouse suspicion. In most cases enteritis is an early symptom, so with fever, greenish stools, a skin eruption and rapid emaciation one is justified in considering the condition infectious.

The prognosis of these infections is distinctly bad. Mild infections do occur, and some recover. The prevention must be along aseptic lines, the cord must be tied with an aseptic ligature, by aseptic hands and followed by aseptic dressings. The bedding, the hands of nurses in treating a fissured breast, the napkins, mouth of the infant, etc., must be absolutely clean.

Infection once established, there is comparatively little treatment, and the infant should be isolated. All infectious conditions require vigorous stimulation and good nourishment. In some instances we have used high intestinal injections without beneficial results.

The Early Diagnosis of Pulmonary Tuberculosis. Cases Suitable for Sanatoria.

C. H. Cattle (The London Practitioner, February, 1904), gives the following points as early diagnostic signs in tuberculosis:

In commencing tuberculosis there may be deficient movement of the affected apex, but dulness on percussion is by no means an essential symptom. There may be increased sense of resistance owing to the underlying consolidation, and it is desirable to accustom ourselves to detect slight degrees of this. Bearing in mind the normal variations above alluded to, we should give careful attention to the quality of the breath-sounds. They may be markedly weaker both in front and behind at the affected apex, owing to local blocking of bronchial tubes. In other cases the first sign is prolonged expiratory murmur, somewhat blowing or high-pitched. When crepitations can be heard, this prolonged expiration receives additional significance. Fine crepitations can often be heard at the end of inspiration; they may also occur during expiration. In any doubtful case the patient ought always to be made to cough vigorously before we can say that crepitations or rales are absent. Another sign which should be looked for is wavy, interrupted or "cog-wheel" respiration, either inspiratory, or both. It is not peculiar to tubercular disease, but is sometimes a sign of value. For instance, it may indicate commencing consolidation at a new focus in cases already under observation, and as a sign of early disease may be present when cough, wasting, or other general symptoms give rise to suspicion. Again, we sometimes find the heart-sounds better conducted than usual to the apex of one or other lung, and this may occur before definite signs of consolidation are present. None of these slight indications of commencing disease may be sufficient, taken alone, to warrant a diagnosis of tuberculosis; but it is obvious that only by keeping a strict look-out and by attentively watching the smallest deviations from the healthy standard shall we be able to form a correct opinion on this momentous question. If we carefully observe the development of such cases, we shall find interrupted or high-pitched or unduly feeble breath sounds, supplemented by crepitations, and finally perhaps by loss of percussion-resonance and by increased resistance. This is the completed picture of a case of commencing consolidation of one apex; and better still if some accidental circumstance, such as a small hæmorrhage, helps us to form a picture of the condition from a few indefinite outlines. It is possible also that we may obtain evidence of early tuberculosis by the use of the Roentgen rays. Another means which may prove useful is the injection of Koch's tuberculin.

He says that fit cases for sanatorium treatment are those in which the disease is limited to one lobe of one lung without clinical signs of cavity, and where the temperature does not range much above the normal after the patient has been put to rest for a week or two. The author believes that many cases of pleurisy after the active symptoms have subsided would be better for a three months' course at a sanatorium. We know that a considerable number of pleurisies are tubercular, and there can hardly be any doubt that the disease is latent in the lung at the same time. Such cases in all probability furnish some of the examples of healed tuberculosis. But where we have evidence by the presence of constitutional disturbance, for instance, that a latent lesion is on the way to become evident to physical examination, we ought then to adopt sanatorium treatment.

Vaginal Operation without Narcosis.

The February Edinburgh Medical Journal contains an article taken from the Centralblatt jur Gynakologie, which refers to three cases of vaginal hysterectomy performed by Gradenovitz after hypodermic injection of morphine. The only painful process was the ligaturing of the lower part of the broad ligaments. Fellenberg recommends the avoidance of general anæsthesia in vaginal operations where the patients are old and suffering from organic disease. The following three cases are reported:

(1) Patient, æt. 69, anterior and posterior colporrhaphy with amputation of the cervix; duration of operation, one hour. (2) Patient, æt. 34, mitral stenosis, with bronchitis; admitted to hospital for irregular uterine hæmorrhages and prolapse; curetted, both cervical lips amputated and posterior colporrhaphy. (3) Patient, æt. 77, senile heart; admitted for carcinoma of fundus uteri, with myoma of the posterior uterine wall. Uterus extirpated, clamps followed by ligature of the broad ligaments being used; duration one hour. In all these cases the patients complained of very little discomfort during the operations. Fellenberg thinks it unnecessary to first inject Schleich's solution into the broad ligaments and tubes but has found this useful when injected into the perineum and vulval region prior to operation. The author always gives a hyperdermic of morphine half an hour before operating. As perforation of the uterine wall by the curette nearly always happens when the patient is under the influence of an anæsthetic. He thinks general anæsthesia should be avoided when curetting the uterus.

Charlotte Medical Journal

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THE NORTH CAROLINA MEDICAL SOCIETY.

We have just received from Dr. Way, secretary of the State Medical Society, a programme of the approaching meeting, which will be held in Raleigh, North Carolina, May 24, 25 and 26, 1904. This programme appears in full on page 347 of this issue. In all probability this will be the largest meeting in the history of the society. The sessions will be held in the Capitol Building in the Senate Chamber. Governor Aycock, in behalf of the State, and Mr. Ed. Chambers Smith, in behalf of the city of Raleigh, will welcome us. The response to these addresses of welcome will be by Dr. J. M. Parrott, of Kinston. The local committee of arrangements has provided several entertainments for the visiting doctors. We understand that a lecture in Metropolitan Hall will be made on the night of the 25th by Prof. Baskerville, of the University, and on the same night there will be a reception at the Capital Club, given in honor of the visiting physicians.

This is the first meeting under the new plan of organization and the attendance is expected to be larger than at any previous meeting. Fully 600 physicians are expected to be in attendance. Reduced rates will be given over all of the railroads and the hotel accommodations will be ample. No feature of the meeting will be more interesting than the addresses of welcome and the response to them. Governor Aycock is known nationally as one of the most eloquent speakers in the South, and we know of no one among our medical men who can respond to the Governor's address more becomingly, or any one who can do us greater honor than Dr. Parrott.

The committee of arrangements consists of Dr. H. A. Royster, chairman; Dr. H. McK. Tucker, Dr. A. T. Cotten, Dr. Joseph Graham, Dr. T. M. Jordan, Dr. J. W. McGee, Jr., Dr. R. S. McGeachy.

Dr. Way reports 53 papers on his programme. This is one-third more than has ever been presented at any one meeting of the society.

GLYCERINE AS AN ANTISEPTIC.

A great many observers lately believe that glycerin as an antiseptic has been greatly overestimated. Dr. Rosenau, who, as we all know, has had exceptional opportunities for studying the antiseptic and germicidal properties of glycerin, considers the question under three heads: First. The antiseptic power of glycerin to restrain bacterial growth, and the amount required to prevent putrefaction and fermentation. Second. The amount of time required to destroy pathogenic and saprophytic bacteria. Third. He considers the subject of tetanus as a contaminator of vaccine virus, and determines the effect of glycerin upon the spores of this organism.

He believes that glycerin in a weak solution, say 10 per cent., when combined with a nutrient media, favors the growth and multiplication of a great many forms of bacteria. He states that a 50 per cent. solution of glycerin will restrain many bacterial growths, but it is not safe to rely upon a weaker solution than this.

It is generally admitted that glycerin has some germicidal power. It will, in a 33 per cent. solution retard the growth and development of ordinary pus cocci. It usually destroys the micrococci of suppuration, whether in pure culture or in pus. This action, of course, depends upon the temperature. For instance, it is claimed that pus cocci will live for months, even years, in an ice chest, when exposed to glycerin, while they would not live a week if the temperature was 100 degrees, and at a temperature of 125 degrees they would not live a day. It has its best effect on the bacillus of diphtheria. It kills this germ quickly, while that of typhoid fever, under the same circumstances is not effected at all.

As has been referred to, tetanus often accompanies vaccination and the glycerin used in the preparation of vaccine is not sufficient to eliminate this danger. Experiments have shown that on this poison glycerin was unable to retard its action at the end of sixty days.

THE PREVENTION OF PNEUMONIA.

Much has been written of pneumonia, especially during the past year. It has been clearly pointed out and shown how each winter season, from October to May, produces a large number of cases. All seasons have their victims, and each annual accounting has been higher than the winter previous. Not only has this been recognized in some special cities or communities but there has been a general development and increase in the number of cases throughout the country.

That the disease is an infectious one is fully recognized. The bacteria causing the disease—the pneumococcus—is well known.

In the practical interest for the good of the human individual, the medical profession and state medicine is that the means of dissemination of the infectious germ be worked out and fully understood, that the disease may be controlled in its ravages and the onward march; in fact its occurrence in any event, be prevented.

While much has been said and written on the mortality, together with the increased mortality and the treatment, very little is to be found in the literature respecting the preventive measures regarding the disease.

The labor and study which has been put forth has been given over largely to the treatment of the disease; the expectation of the occurrence in the natural course of human events being, that pneumonia will prevail, the profession readily applying the greatest importance and attention to that of treatment instead of prevention.

Edsall & Ghriskey (1) say: the attitude of the profession toward the control of pneumonia has been somewhat passive; for in spite of this general knowledge there are certainly a few physicians who adopt more active precautions to prevent the spread of the disease than to have the sputum from pneumonia patients destoyed, and perhaps to utter a gentle warning as to the possible danger in very close contact with those sick with the disease.

These two men in their observance record a number of cases of pneumonia, or the discovery of pneumococci in the blood of patients confined in a certain bed in a side ward of a hospital, with which they were connected, all without the slightest doubt traceable to a severe case which had died of pneumonia in this bed, though the bedding had been changed, cleansed, etc., and the room well aired.

Wilson (2) cites three cases in the same house in previously healthy persons; the possibility of their being of independent infection seems dubious.

The infectiousness of pneumonia has been a means of disseminating pneumonia is rather weak and unsustained, as Preble (3) says: Another factor which is receiving more attention than formerly, and perhaps more than it deserves is that of contagion. When we consider the almost absolute ambiguity of the pneumococcus, contagion is an unnecessary assumption.

The infectiousness of pneumonia has been accepted since its recognition by Jurgenson in 1872. And the organism must be received into the system through the inhalation of dried sputa. Tyson says its route of entrance is probably the respiratory passages, since it has been found in the nose, larynx, eustation tube, and is said to persist for months in the saliva of healthy persons who have had pneumonia.

Osler (4) says, clinically, the infectious nature of pneumonia was recognized long before we knew anything of pneumococcus. Secondly, the course of the disease is that of an acute infection. It is the very type of a self-limited disease, running a definite cycle in a way seen only in infectious disorders.

Cobb (5) Considers the greater prevalence of pneumonia and influenza in cold weather to be due to the greater dosage of contagion, due to the overcrowding and overheating in theatres, cars and stuffy places, where the heat is great enough to desicate the germs planted therein by coughing and spitting. In sparcely settled places there is little pneumonia. The death rate is appalling and yet nothing is done to check the spitting habit, which seems to be the only cause of its spread.

It has been demonstrated that the organism of pneumonia may long remain viable and virulent in preserved sputum and in their natural medium, dust, earth &c. Germano (6) observed that pneumococcus lived as long as forty to sixty days in dust and sand.

Edsall and Ghriskey (7) says: The literature on epidemic pneumonia make it practically clear that infection may occur (1) through widespread atmospheric dissemination; (2) through the agency of some local source, and (3) through direct contagion from persons sick of the disease.

When a widespread epidemic or the occurrence of many cases appear, we are forced to admit and recognize the possibility of the dissemination by atmospheric infection, like that which causes influenza; the source of the infection is, of course, under such conditions difficult to discover.

Much can and should undoubtedly be done in every case to prevent the possibility of the continuance of the pneumococci, since the organism is found in the sputum and blood, there is every reason to expect to find it in all the excretions of the body. Then it becomes the duty of the physician,

(1) Edsall and Ghriskey, *Therapeutic Gazette*, March, 1904.

(2) Wiltson, Tranactions Phill'a Co. Medical Society, 1904.

(3) Preble, *Progressive Medicine*, March, 1904

(4) Osler, Practice of Medicine, 4th Edition.

(5) Cobb, *Medical News*, of New York, March 21, 1903.

(6) Germano Zeitsch f. Hygiene, 1897.

(7) Edsall and Ghriskey, Ibid.

nurse and care taker of every case to see that all of the possibilities of the continuance of the bacilla is prevented by using the best measures possible to destroy all possible pneumococci and diplococci, if it should also exist, as Sternburg found it in one out of every ten cases. Welsh found the pneumococci in the dust of the floor of the sick room. This could readily be the means of infecting any individual susceptible by reason of lowered vitality or inability of resistance when stopping in such a room. The floor should be mopped at intervals with a cloth moist with carbolized water.

Reynolds(8) says: I would add that every precaution employed in a case of diphtheria should be enforced in a pneumonia case. The two diseases are much more similar from a prophylactic standpoint than are tuberculosis and pneumonia. The former are both acute, therefore preventive measures are not necessary for so long a period as to become burdensome and perfunctory.

In addition to having all the excretions of the individual case desroyed or sterilized during the sickness and convalescence, the apartments so occupied should be well fumigated and disinfected, as after the most violent bacterial case. Especially should this course be carried out in every ward of a hospital so occupied, since hospital wards are more likely to be occupied than is a sick room in a private residence; however, the fumigation should be thorough in both instances. In a hospital, isolation sterilization and fumigation.

In ending, we quote from Reynolds: "Meantime it remains for each of us—physicians and sanitarians, curer and preventer alike— each in his appointed place, to do what in him lies, to restrict the ravages of this the most murderous modern scourge of civilized peoples. Let the physician instruct his pneumonia families as to the method of saving other members of the household from falling victims. Let the sanitarian and the health officers push the propoganda of healthful living, the conservation and development of such inherited powers of vital resistance as the individual may possess—that vital resistance, which is after all, the best prophylactic against, not consumtion only, but against all of the preventable diseases."

(8) Reynolds, *Journal American Medical Association*, Feb. 28, 1903.

PANAMA CANAL AND SANITATION.

The Medical Profession of the United States have asked that a member of the profession be appointed upon the Commission of the Panama Canal. This is a matter that cannot be ignored but at a great cost. We have a history of past results in the work on the isthmus, which speaks in positive language and shows that in advance of any active work on the canal, the region in which the work will be conducted should be placed in a thoroughly sanitary condition. Our experience and work in Cuba show how well such reform can be accomplished.

It would be a reflection upon our government and our people if this sanitary duty is delayed, and only put into effect after the conditions force such action upon the authorities by reason of serious outbreaks of disease, or when the region has assumed the condition of a slaughter pen.

The rational plan, of course is, that a force of intelligent help be sent under an efficient member of the commission, a man with full knowledge of tropical diseases, to clear the region of operation, that it be in the best sanitary condition, as well as that the resident inhabitants be brought under the sanitary regulations, that the best conditions may be maintained. This is not only necessary for the active operations during the construction of the canal, but is equally necessary for the personal of the after policing of the Canal Zone.

This matter the Medical Profession of the United States should continue to urge with definite voice, until the fullest provisions necessary are arranged for carrying out such safeguard from the diseases which prevail in such a tropical region, to those going there in any capacity.

Two diseases are naturally to be contended with, and they are of very serious import—malaria and yellow fever, and both are well understood and controlable by sanitary medical experts of the United States.

TYPHOID FEVER, POLUTED WATER AND THE PEOPLE.

During the past year or more various of the large and small cities and densely populated communities of the United States have sustained outbreaks of typhoid fever. Some cities have had the disease in the form of an epidemic for a number of years. Thus, these afflicted communities are embarrassed and suffer by the care, publicly and privately, of a large number of sick, and at the sametime sustaining the loss by death of many citizens, a large majority of whom are the more active and healthy individuals.

There is no excuse for these outbreaks of typhoid fever causing so much sickness and death. The loss of health and life by typhoid fever is now being considered a

criminal matter through the fault of some one or more individuals. This has been the verdict and is held and pronounced by persons of medical ability and judgment.

The medical profession, the bacteriologist, and all who have worked out this subject, recognize the source of typhoid fever to be that of polluted water, used for drinking purposes.

The drinking water used in cities and compactly inhabited communities is supplied by companies, organizations or by the municipal government of the city and is drawn from some lake, stream of water, or from springs in some more or less remote section of elevated country. The condition of the water depends upon the stream or source of supply in its degree of purity or polution, as the circumstances exist at the time and place from which it is drawn or received. Whether it is furnished to the inhabitants for their daily use in a poluted or dangerous condition, in which it is naturally found, depends upon the disposition, as a rule, of the corporation or municipal officers who have charge of the water supply.

All companies or officials should see that they have the right and power to make certain regulations regarding the quality of the drinking water; and if there is any dangerous germs found therein, to take means or use methods to remove such germs, which are dangerous to the consumer.

All such companies should be fully capitalized, or if municipal officials should be supplied with proper financial means by which the drinking water may be made safe. And if they fail to give the drinkwater in a condition safe for general use, by reason of carelessness or mismanagemen by reason of their carelessness or mismanagement, let them be made financially responsible for the sickness and death of all typhoid fever cases in the community thus supplied, when such disease is traced to the poluted condition of the water furnished.

When municipal officers have not been provided with proper means for such water purification, let the damages be placed upon the municipal treasury and the population will be compelled to pay such damages, and crime will be partly appeased by the real culprits in the case. Thus by being made liable, the people will see to it that provisions are made for wholesome drinking water, and when the officials fail in their municipal duties they will be looked after and the crooked and inefficient officials will be turned down and competent men will be selected.

When such measures prevail there will no severe epidemics, as as occurred in 1903 at Butler, Pa.; Lowell, Mass.; Itica, N. Y., or the continued epidemic, as has existed for years in Philadelphia.

PUERPERAL INFECTION-ITS PREVENTION.

The one thought that gives the woman, who is nearing the date of quickening and full time, and of the the physician or obstetrician in attendance, is a feeling of anxiety of a possible puerperal infection and its concomitant resulting effects. The one important aim or routine part of the technique of the lying-in period that has engrossed the mind and efforts of the medical profession in view of making it perfectly and thoroughly successful in its results, has been that which make the parturient act free of dangers of septic accident.

There continues to exist at the present time too much material of a serious nature in the statistics of the lying-in period to enable the profession to rest supinely upon the results already achieved. The call is loud and definite to continue to work and observe that an efficient method or technique be effected which will assure complete or perfect absence from danger from such source of infectious casualities or occurrences.

The statistics appear quite definite and show that the mortality in hospital obstetric practice has been reduced to a fraction of 1 per cent. Private practice in large cities fail to show any material improvement over the results of former years. Most of the casualities of this form of practice is due to the fact that many cases are attended, unfortunately, by the careless and ignorant mid-wife. The too frequent carelessness or want of knowledge or appreciation of the details of strict surgical cleanliness on the part of the medical attendant are sources of failure to reduce the mortality in private practice.

With this we have also the imperfect knowledge of the bacteriological forms which figure in the production of this disease.

It is recognized, as Dr. Richard C. Norris states, by Kroenig of Menges and of Williams that the secretions of the vagina, cervix and uterus under normal conditions are sterile. He further cites Deoderlein's investigations as showing that normal vaginal secretions, acid, sticky and gellatinous in character and as possessing an inhibitory action upon pathological micro-

organisms. The gonococcus is now believed to be the only micro-organism that can retain its pathological powers in the normal vaginal secretions.

The studies and investigations show that the secretions about the vulva, labial folds and annal orifices very frequently contain micro-organisms and "herein lies the danger." Norris outlines three points for study and observance, which are impotant and necessary in the detail of technique of the lying-in chamber. "(1) The antipartum toilet of the patient; (2) hand sterilization and dangers of vaginal examinations; (3) the immediate repair of injuries to the birth canal."

Norris has so ably outlined the technique and we will quote from him. The data was evolved from the experience in 1,900 cases at the Preston Retreat, Philadelphia: "We have learned that the perineum, the vulva and labial folds, in the majority of healthy normal cases, contain pathogenic micro-organisms, and it is this area and this area only that we should attempt to sterilize routinely. Skin disinfection by any known method is not infallible and herein lies the practical difficulty, and the explanation of the fact that the modern surgeon has been driven to use the rubber glove. This admission means that were it practicable to apply our best methods of hand sterilization to the vulva and vagina, which for obvious reasons cannot be done without an anesthetic, even then we could not rely upon such methods in all cases. These facts fortify those obstreitians—and I am of the number—who believe that vaginal examinations during labor, even with the rubber glove, should be reduced to the least number possible. Were they not necessary at times, for knowledge of mechanism, of progress of labor, and to detect the correct complications, the ideal delivery would be conducted without a single vaginal examination.

The third important factor in prophylaxis is the attention required by injuries of the parturient canal. Lineal tears of the vagina and perineum should always be united. Contused and ragged lacerations should be neatly trimmed of disorganized tissue before they are sutured. The question of immediate repair of cervical lacerations, not producing serious hemorrhage, and of other injuries requiring formal operations at this time is debateable. My own conviction is that the danger of infection, the contused condition of the tissues, the time required and the inopportune occasion in private practice all are in favor of delay until involution of the tissues have occurred.

The antiseptic solution used in the lying-in room for cleaning the hands or genitals should always be made with boiled water. The occlusion vulva dressing must be changed frequently and must be made of material known to be surgically clean, otherwise occlusion dressings are best discarded. All implements, such as forceps, sutures, needles, needle holders, syrings nozzles and catheter, should invariably be boiled before they are used.

An acclusion dressing wet with an antiseptic solution should be worn over the vulva throughout labor to prevent the patient from handling the genitals and to disinfect further the commonly infected area—the vaginal introitus."

In making examinations let it be done only as becomes strictly necessary and with sterilized rubber gloves, or with the finger, if that is the method, sterilized and annointed with carbolized lard or the solution of guttapercha in benzine, as is suggested by Murphy, of Chicago (2). Let evey medical attendant be definite and exact to a fault in the pursuance of the proper and perfect technique, and the statistics of the mortality will be greatly lessened.

Also every improper person or unqualified mid-wife should be positively prohibited from attending cases of parturition. There is no need for such risks to the parturient woman and those not otherwise enlightened should be protected by status preventing those unfit from engaging in the work.

The average mid-wife is an uneducated, uncouth and dirty individual, who for a small fee goes about infecting parturient women. Ground (3).

(1) Richard C. Norris, M. D., *American Medicine*, Feb. 13, 1904.

(2) John B. Murphy, A. M., M. D., Chicago, *Jour. Amer. Med. Ass'n.*, March 19, 1904.

(3) Ground, *Medical Council*, Feb. 1904.

Book Notices.

Hughes' Treatise on Neurology; The Neurological Practice of Medicine; A Cursory Course of Selected Lectures in Neurology, Neuriatry, Psychology and Psychiatry; Applicable to General and Special Practice; with 177 Illustrations; After the Author's Class Room Methods as a Teacher of Students; Designed for Students and General Practitioners of Medicine and Surgery; by Charles H. Hughes, M. D., President of the Faculty

and Professor of Neurology, Psychiatry and Electrotherapy, Barnes Medical College; former Major and Surgeon-in-Chief of Schofield, Winter, Hickory Street, and McDowell's College Military Hospitals, Superintendent Missouri State Insane Hospital, Acting and Honorary Member of Many Home and Foreign Medical and Scientific Societies, Etc., Etc.; Member Governing Board of Centenary Hospital, Ex Member Board of Health and Consultant of City Hospital, Insane Hospital, Etc.; 1903; Hughes & Co , 418 N. 3rd St., St. Louis, Publishers. Price, $3 00, Prepaid.

The Neurological Practice of Medicine is a cursory course of selected lectures, from an eminent source of clinical and lecturing experience, on the essential features of Neurology, Neuriatry, Psychology and Psychiatry applicable to the general and special practice of Medicine. The book is plainly and forcibly written in the author's well-known impressive and succinct style. Many of the pages of the book are peculiarly fascinating and eloquent, as well as accurately descriptive and scientific.

The style of the author in the amphitheatre reappears in this remarkable book, as those who have sat under his clear and original teachings will discover in the reading of the several chapters.

The fruitful results of thirty years of extensive clinical experience over a portion of the vast fields of neurology and psychiatry are presented in this valuable book.

Preliminary essential definitions presented in new and forceful manner and a discussion of the neurones and the nerve cells, physiologically and in relation to disease, occupy the first six chapters of the book. Here disease changes and the relations of morbid neurones to distant diseases, are given new prominence and force.

Two chapters are devoted to the elucidation of head heat and brain disease, clinical cerebral thermometry and cephalic galvanization and practice, and to the alterations of the temperature sense in diagnosis and practice.

The discussion and description of extra-neural or ad-neural nervous disease, and systematic states, leading to, preceding from or blending with nervous disease, malaria, enthrocytes, thermasia, thermaesthesia and their effects on the neurones, etc., are included in two additional and highly instructive chapters for the general, as well as special, practitioner in any department of clinical medicine.

Instruments of precision in diagnosis and practice are included in several interesting illustrated working chapters, embracing valuable diagnostic data and description.

The chapters on ascending and descending degeneration, the reaction of degeneration, Waller's law; its diagnostic significance, how to discover this condition, its uses and applications in practice, are exceedingly instructive.

In other chapters the evolution of the neuraxis and Nature's building of a brain and spinal cord, and the history of the evolution of the brain, are given with appropriate and novel illustration.

The chapter on electricity and electrical appliances is a short, plain, and practical presentation of this feature of efficient neurotherapy, worth the price of the book.

In another chapter the dura mater, its sinuses and diseases, is discussed in a manner within the comprehension of a tyro and yet about all the ground is well covered.

Cerebral embolism, thrombosis and hemorrhage and their sequent brain diseases, though cursorily considered, and treated with brief comprehensiveness, leaving little more to be said for practical purposes.

The anatomy of the spinal cord with reference to its morbid states; the nerve centers, the psycho-motor centers, visual apparatus centers, and other moto-reflex centers, with an interesting and highly instructive chapter on the reflexes generally considered and the censori-motor system in diagnosis, the cerebro spinal axis or neuraxis and its nerve centers, ganglia, plexuses and neurones, importance of the pupil and other nerve centers in diagnosis, the basal and other ganglia come under other chapters.

A cursory demonstration of the cranial nerves in their clinical relations, the columns of the spinal cord and the nerves that go to and from it, the cord segments of impression, expression and influence, a further outline of the cerebral and spinal nerves and nerve centers and their relations to nervous diseases are continuing features of this remarkable book.

The virile or genesaic reflex, discovered by the distinguished author, is an essential and specially valuable new feature of this work.

Aphasia defined, located and physically and psychically considered in its clinical and medico-legal aspects and the psychological analysis of the Bevin case are further interesting features.

The neural and psycho-neural aspects of surgical practice, lumbar puncture in surgical diagnosis and prognosis, and lumbar puncture in neuro and cyto-diagnosis, the nutrition and conservation of the neurones, or neuro and psychotherapy in surgery, fill other pages.

The psychiatric factor in surgical and medical practice, psychical depression and the neuropathic diathesis, post-operative

insanity, etc., etc., are some of the other and many remarkable features of this remarkable book, from a remarkable source of extensive and broad clinical observation and experience, reaching over a third of a century of constant, varied and wide medical practice, giving aspects of medical observation and reasoning from the neuro-anatomical, neuro-psychological and neuro and psycho-therapeutical side of medical observation, that is coming rapidly under the consideration of the profession and destined to prominently prevail in the future practice of medicine.

Though the incentive to the preparation of the book was to respond to the demand of those to whom the author had lectured as students of medicine, past and present, now living in the several States of the American Union and countries abroad, in the three medical colleges in which he has lectured through the past decades, the Barnes, the Marion-Sims (now St. Louis University) and the St. Louis (now Washington University), the medical practitioner everywhere may profit from perusal of its pages. The price is three dollars or for two copies to one address, five dollars.

Prostatic Hypertrophy from Every Surgical Standpoint, by George M. Phillips, M. D., and Forty Distinguished Authorities. Edited and Compiled by S. C. Martin, Jr., M. D. The Ajod Company, Medical Publishers, Fidelity Building, St. Louis, U. S. A.

It would appear from the number and character of authorities interested in this matter, that a publication of greatly increased proportions should be necessary. The aim of the author in this instance is merely to bring to the notice of the practicing physician the advances made in recent years in this line of work, and to enable him with minimum effort to talk intelligently with his prostatic sufferers.

It very often becomes necessary for the family physician to acquaint his patient with the views of those especially devoted to this work, to outline the treatment, and discuss in detail the advantages of certain operative procedures, and even carry the patient step by step through the proposed operation. It also happens that impressions made in this way have been misleading. The patient may be unduly or insufficiently impressed with the trials that await him, and as a result the surgeon or attending physician must enter into explanations that are tedious, and not always satisfactory.

The object of this book, aside from that which has just been given, is to enable the physician in charge of such cases to select a surgeon and to prepare such patients in advance to receive the services of the spe cialist.

The price of the book is $1.75. It contains 176 pages and is nicely bound.

The compiler and editor, Dr. S. C. Martin, Jr., is a specialist of great experience and is recognized as one of the best informed men on this subject in the west.

The Medical News Pocket Formulary, by E. Quinn Thornton, M. D., Assistant Professor in the Jefferson Medical College, Philadelphia. New (sixth) edition. Leather, wallet shape for the pocket, $1.50 net. Lea Brothers & Co., Philadelphia and New York. 1904.

Professor Thornton has again brought this useful pocket companion thoroughly to date. It is arranged alphabetically and the best therapeutics of the masters is therefore instantly at command in its pages. A peculiar and valuable feature is found in the discriminating annotations. The various stages and complications of disease require treatment adapted to the conditions they present, and rational and successful therapeutics must recognize this fact. In a few clear words Professor Thornton points out the special utility of each of the various prescriptions recommended under the headings of the respective diseases. The book opens with 16 pages of data which the physician will find useful, such as incompatibles, poisons and antidotes and a table of maximum and minimum doses. With this handy volume in his pocket, the practitioner need never feel at a loss for a pertinent suggestion.

Lea's Series of Medical Epitomes; Tuley's Epitome of Pediatrics; A Manual for Students and Practitioners, by Henry Enos Tuley, A. B., M. D., Professor of Obstetrics in the Medical Department of Kentucky University, Louisville, Ky. In one 12mo volume of 266 pages, with 33 engravings. Cloth, $1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1903.

Much has been said pro and con regarding epitomization, but the resultant fact remains that when well done it is highly useful. Professor Tuley's work justifies this statement. He considers the whole subject of Pediatrics from the moment of birth to adolescence, including the anatomy, development, care and examination of intants, the therapeutics peculiar to that age, and the feeding of infants and older children, in full detail. He then covers the various diseases systematically and clearly with the necessary directions and prescriptions. This little work may readily be carried in the pocket and consulted at times

when larger volumes are inaccessible. In this way the physician may refresh his knowledge and gain practical points when needed. For the benefit of the student, questions are appended at the ends of the chapters, so that he may test his own knowledge. The volume is a fitting representative of the excellent "Medical Epitome Series."

Diseases of the Skin, by C. D. Collins, M. D., Senior Professor of Skin and Venereal Diseases, and Senior Professor of Physiology, Hahnemann College and Hospital, Chicago. 488 pages with sixty-five illustrations. Price $3.50. P. H. Mallen & Co., distributors. Chicago, Ill.

An up-to-date treatise, very complete—, more extensive than Kippax, and comparing favorably with Dearborn, will meet needs and requirements of students, and contains much that is new and valuable for the instruction of the practitioner.

The Materia Medica (Part III) introduces some new remedies, while omitting several mentioned in other works, such as Ceris (Berberis), Chloral Hydrate, Iris, Juglans Cin., Lappa Major, Sarsaparilla, Secale, Selenium, Stillingia, Urtica, beside several others whose symptomatology suggests their value in skin diseases.

Several hundred formulas of local applications as used by Dr. Collins in his private and hospital practice, are included in the volume and add greatly to its value.

It is a valuable book, well written and contains a great deal of practical information.

International Medical Annual; A Year Book of Treatment and Practitioner's Index. 1904. 22nd Year of Publication. New York. E. B. Treat & Co., 241–243 W. 23rd St.

This is a resume of the year's medical literature, by thirty-three department editors, with added articles by noted specialists. The convenient size and dictionary arrangement of this volume supplemented by a full index, make it the most valuable year book published. Its editors are the leading editors of the world and are known to every one in this country. The possession of this volume enables the busy practitioner, in a moment, to make himself acquainted with the most recent advances in knowledge and practice respecting any subject in medicine, therapeutics, or surgery. The book is substantially bound in cloth with may illustrations by plates and in colors. The book contains 740 pages. The price is $3.00 net.

Fenner's Twentieth Century Formulary and International Dispensatory, being the Twelfth Edition of Fenner's Complete Formulary, Revised and Re-written, and Containing Working Formulas for the Official and Unofficial Preparations of All Countries, together with Formulas, of Every Nature Generally Used or Required in the Practice of Pharmacy and the Business of the Chemist, Manufacturing Pharmacist, Manufacturer of Proprietary Medicines, Toilet Requisites, Etc. A Complete Formulary and Hand Book of Valuable Information for Pharmacists, Physicians and Manufacturers of All Manner of Preparations, and for Students of Pharmacy and Medicine, Compiled and Written by B. Fenner, Westfield, N. Y. B. Fenner, Publisher, 1903.

This book is the twelfth edition of what has heretofore been known as "Fenner's Complete Formulary." The first edition appeared in 1874. The present volume contains all of the important matter of the previous editions entirely re-written and rearranged, together with everything new of interest to the pharmacist, chemist and manufacturer, down to date of publication, August 1, 1903.

This book is estimated to be in the hands of more than 25,000 druggists, manufacturing pharmacists, chemists, manufacturers of proprietary medicines, extracts, toilet requisites, and all other preparations of interest to this class of people.

It is a hand-book for every day use in the laboratory and on the prescription desk and is an every ready reference book of information of all subjects connected with pharmacy and chemistry. No drug store or laboratory is complete without it. Physicions will receive an immense amount of valuable information by adding it to their libraries for constant reference. It is a complete library of pharmacy, chemistry and materia medica of this country, really, of the world. It is a large, royal octavo volume of 1620 pages, very strongly bound in leather. The price is $10.00 net.

The following glance at its contents will give some idea of the comprehensive character of the book:

Part. I. This part contains a brief general description of drugs and medicinal substances, comprising elementary chemical substances, minerals, metals, not metals, vegetable drugs, plants and parts of plants and animal drugs.

Part II. In this part the working processes employed in pharmacy and chemistry, and in the manufacture of pharmaceutical and chemical preparations are fully described.

Part III. This part, which contains 1147 pages, includes the drugs, chemicals and preparations, official and unofficial of all countries. Everything known or em-

ployed in medicine or required in the drug business. All the regular preparations of pharmacy, all chemicals and chemical compounds used in medicine; flavoring essences and extracts, etc., etc.

Part IV. This part consists of 130 pages in which are given the formulas for the entire range of standard remedies and proprietary medicines. The preparations made from these formulas are similar to those best known and most popular on the market.

Part V. This part contains formulas and directions for making all manner of toilet preparations and perfumes. Among these are included all the latest hits in toilet requisites and a complete line of synthetic perfumes such as have recently become popular.

Part VI. In this part formulas for soda water requisites of all kinds, fine confectionery and chewing gums are given. Everything late, popular and attractive may be found in this department.

Part VII. This part gives the method of making spirituous liquors and wines, together with formulas for compounding all manner of artificial and blended liquors and wines, and the popular cordials known to trade.

Part VIII. This part includes a great number of miscellaneous preparations not otherwise classified. Among these may be mentioned cements, glues, mucilages, pastes, baking powders, cloth cleaning compounds, exterminators, foods, inks, blueings and blackings, polishes, and preservatives, etc., etc.

Commoner Diseases of the Eye; How to Detect and How to Treat Them, by Casey A. Wood, C. M., M. D., D. C. L., Professor of Clinical Ophthalmology in the University of Illinois, etc., and Thomas A. Woodruff, M. D., C. M., L. R. C. P., Professor of Ophthalmology in the Chicago Post-Graduate Medical School, Chicago, etc. 250 Illustrations; 7 Colored Plates. 500 pp.. Bound in green buckram, gold side title and top. $1.75.

This book is intended to meet the needs of the general practitioner. It describes only the commoner diseases of the eye, contains numerous illustrations and synopsis of writings and a complete reference index. The acquirement of even a medical knowledge of the diseases of the eye, especially those requiring the use of an ophthalmoscope, necesitate considerable study and and attention which the everyday practition is seldom prepared to give the subject. Such cases are generally referred by the busy practitioner to a conferee who makes a special study of them. This procedure has many drawbacks and is not always practical, consequently it is the duty of every well-equipped general practitioner to have at least some knowledge of the diseases of the eye, and the writer knows of no better book than this one for study and to refer to.

A Practical Treatise on Nervous Diseases for the Medical Student and General Practitioner, by F. Savary Pearce, M.D., Professor of Mental and Nervous Diseases in the Medico-Chirurgical College of Philadelphia; Neurologist to the Philadelphia and Howard Hospitals; Member of the American Medico-Psychological Association, and of the American Climatological Association; Chairman of Section on Nervous and Mental Diseases of the American Medical Association. Colored frontispiece. 91 illustrations in the text—many in colors. D. Appleton & Co., New York and London. 1903.

This text book of practical neurology is written with the intent to fill a distinct place in the literature of this subject. The author has sought to make a lucid presentation of this important branch of medicine. He has not dwelt at length upon the details of the doubtful points in neurology, but has tried to make the most, in a small compass, of practical facts, in the study of the diseases of the nervous system, believing that this is the surest method of instilling knowledge of a subject so complex. The chapter on anatomy and physiology has been blended, so that its study will insure a clear understanding of the anatomy and functions of the various parts of the nervous system.

This attractive volume is profusely illustrated with original photographs and cuts, which enable the student to more clearly comprehend the text. It should have a place in the library of every general practitioner. We commend it to our readers.

A System of Physiologic Therapeutics; A Practical Exposition of the Methods, Other than Drug Giving, Useful for the Prevention of Disease and in the Treatment of the Sick; Edited by Solomon Solis Cohen, A. M., M. D., Senior Assistant Professor of Clinical Medicine in Jefferson Medical College; Physician to the Jefferson Medical Hospital, and to the Philadelphia, Jewish, and Rush Hospitals, etc. Vol. VII. Mecanotherapy and Physical Education, including Massage and Exercise, by John K. Mitchell, M. D., Fellow of the College of Physicians of Philadelphia; Physician to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Assistant Neurologist to the Presbyterian Hos-

pital of Philadelphia, etc., and Physical Education by Muscular Exercise, by Luther Halsey Gulick, M. D., Director of Physical Training in the Public Schools of Greater New York; President of American Physical Education Association; Chairman of the Physical Training Committee, Louisiana Purchase Exposition; Chairman of National Basket-ball Committee, etc.; with Special Chapters on Orthopedic Apparatus, by James K. Young, M. D., Professor of Orthopedic Surgery in the Philadelphia Polyclinic; Assistant Orthopedic Surgeon to the Hospital of the University of Pennsylvania, etc. On Corrective Manipulations in Orthopedic Surgery (including the Lorenz Method), by H. Augustus Wilson, M. D., Clinical Professor of Orthopedic Surgery in Jefferson Medical College; Orthopedic Surgeon to the Philadelphia Hospital, etc. And on Physical Methods in Ophthalmic Therapeutics, by Walter L. Pyle, M. D., Assistant Surgeon to Wills Eye Hospital, Philadelphia. With 229 Illustrations. P. Blackiston's Son & Co., 1012 Walnut St., Philadelphia, 1904.

The general title of this volume, "Mechanotherapy and Physical Education," suggests but imperfectly the scope and character of its contents. What these are can be learned only from a study of its pages, but the subsidiary titles—"Massage and Exercise," "Orthopedic Apparatus," "Corrective Manipulations in Orthopedic Surgery" and "Physical Methods Employed in Ophthalmic Therapeutics" indicate the variety of the topics discussed. The main theme, of course, is that treated by Dr. Mitchell, but the other subjects need full consideration in a system of Physiologic Therapeutics and their relation with the use of exercises and manipulations of the tissues are sufficiently evident to justify the association. As an example of this intimate connection, the subject of Spinal Curvature may be cited. The origin of this affection frequently may be traced to faulty position at the school desk, this in turn sometimes depending, in part at least, upon occular defects. Educational gymnasts and correct glassing, may correct the occurrence of curvature, while massage, remedial exercise, orthopedic apparatus and corrective manipulations all play a part in the treatment of the various forms and degrees.

Another example may be drawn from headache, which, if it is sometimes treated by massage, may be prevented and may be prevented in other cases by the exercise that restores digestive tone or improves faulty metabolism, while in still other instances it disappers when eye-strain is corrected. For the relief of eye-strain and the manifold symptoms to which it may give rise, not only refractive correction is needed, but often suitable exercise must be prescribed for the ocular muscles.

The medical profession and its patients owe to a physican of Philadelphia, Weir Mitchell, the recognition of the part played by eye-strain in causing or aggravating nervous and other disorders. They are further indebted to William Thompson, William F. Norris, and other ophthalmogists of Philadelphia, for the development of Mitchell's discoveries, and especially to George M. Gould for clear perception of the important place of ocular disturbances in medical diagnosis and the reiterated teaching needed to make this knowledge an integral part of the general professional consciousness. It seems appropriate, therefore, that a treatise like the present, emenating from Philadelphia, should give this subject its deserved prominence, probably for the first time in general therapeutic literature.

Extremes, however, are to be avoided in this, as in all other questions of therapuetic diagnosis. The attention recently drawn to the bloodless method of reducing congenital dislocation of the hip, devised by Professor Lorenz, of Vienna, will give to the article descriptive of this procedure timely interest. Dr. Wilson's contribution, however, while it describes and illustrates Lorren's method comprehensively and in detail, is not confined to this subject but also embraces many other methods for the skillful application of manual force to the correction of deformities of the osseus structures.

The article upon "Exercise as a Method of Physical Education" has been given a separate place instead of being incorporated with the work of Dr. Mitchell, in order to emphasize the importance of the theoretic views advanced by Dr. Gulick, especially as to the correlation between the development of the race and that of the individual and of the necessity for guiding the physical training of individuals on evolutionary and historical lines. The maxim that "function makes structure" and its corollary that function is the guide for the exercise of parts, cannot be too strongly emphasized. Important also in the realization of the physical effects of city life, so that we may take under conscious direction those muscular activities necessary to the preservation of health that in a better environment might safely be intrusted to unconscious nature.

Exercise as a therapeutic method has suffered so much discredit from the wild theories and the fantastic and exaggerated overstatement of its value by excited enthusiasts that any one who would write usefully on

it must constantly endeavor to make his work not only precise and scientific, but modest and rational in its claims and practical in its methods.

Taking the book every way this volume is superior in many respects to any of its associates. No library is complete without a set of these works on Physiologic Therapeutics.

The Public and the Doctor—by a regular Physician. Published by Dr. B. E. Hadra, Dallas, Texas.

The practicing physician cannot help wondering how little accurate and correct information the general public possesses as to medical affairs. Neither the nature of diseases nor the aims of treatment are as well understood as so important a feature of human life demands. As a natural consequence the position and work of the physician is greatly encumbered, and a sound relationship between him and the public endangered, to the detriment and annoyance of both. The only way to remedy this unfortunate condition is to secure better information for the masses. This is partly done by the public schools and current literature. That it is not sufficient is shown by the increase of quackery.

To assist in the good work is the object of this little book. It is written by a regular physician and is offered to such persons as are amenable to reason. The fanatic or stupid will be as little affected by it as by anything else beyond his grasp. It must seem desirable that the physician have some way to reach the thinking part of the people, and as he will have neither the time nor the inclination to go with everybody through a discussion of all the large and small intricacies of his profession, he may avail himself of this little book as a medium of instruction.

We are sure that the fellowship and confidence between client and physician will be enhanced by it. The book contains 150 pages and is nicely bound.

The Man Who Pleases and the Woman Who Charms. By John A. Cone. Hinds & Noble, Publishers, 31–35 West 15th st., New York.

The makers of books have been divided into two classes—the creators and the collectors. In preparing this volume the author has made no claim to a place in the first division, for he has been, to a great extent, only a collector. The author says: The facts which the book contains are familiar to intelligent people, and the only excuse offered for presenting them in a new dress is that we need to be reminded often of some truths with which we are most familiar.

In our daily intercourse with one another, we may forget to render to others that thoughtfulness and attention which we exact from them.

We all know that the essence of courtesy is the purpose, in speech and manner, to be agreeable, attractive, and lovable, to awaken by our presence happy impressions in another. We all understand this, but we so easily forget it, or, at least, forget to put it into practice.

Courtesy is not the least of the Christian virtues, and it should be studied as an art.

This book is indeed an interesting little volume. It is a small book of 125 pages and is well written. We do not know the price but hardly think it will exceed $1.

Manual of Clinical Microscopy and Chemistry, prepared for the use of students and Practitioners of Medicine. By Dr. Hermann Lenhartz, Professor of Medicine and Director of Hospital at Hamburg, etc. Authorized translation from the fourth and last German Edition, with notes and additions, by Henry T. Brooks, M. D., Professor of Histology and Pathology at the New York Post-Graduate Medical School and Hospital; Member of the New York Academy of Medicine, etc. With 148 illustrations in the text and 9 colored plates. Pages xxxii—412, octavo. Bound in extra cloth. Price $3.00 net. F. A. Davis Company, Publishers, 1914–16 Cherry Street, Philadelphia, Pa.

This work, its simplicity in arrangement and presentation of the subject matter, its adaptability to the needs of the general practitioner and under-graduate is already well known. It has been the author's object to present to the physician and student a book on clinical microscopic and chemic methods of examination that is equal if not superior to any that is available. He has given special study how to apply the knowledge of microscopy in general practice. He has succeeded in giving the profession a book which can be used. The knowledge set forth in it can be applied in a practical way. The book is made up in a measure from clinic lectures delivered by the author in the Leipzig Clinic.

A glance at the table of contents will show the divisions of the book. It may also be remarked that in the microscopic part the author considered only the examination of fresh and dried impression and teased preparations, because the more complicated examination of sections belongs to the domain of pathologic anatomy. The microscopic résumé.

Chemistry has received detailed consideration especially in connection with ex-

amination of the urine, while in those sections devoted to the study of the blood and gastric contents only the practical tests, including forensic examination of blood stains, have been discussed.

In the first section of the book the vegetable and animal parasites have been briefly dealt with. In this way only was it possible uniformly to present parasitology in its importance upon pathologic processes, and to avoid frequent repetitions in the subsequent sections. The greater space devoted to a description of the vegetable parasites can readily be understood at the present day. In regard to many questions in this connection the writer has considered many authors. He has however generally omitted reference to literature.

The Perpetual Visiting and Pocket Reference Book. Including Information in Emergencies from Standard Authors, also the following comprehensive contents: Table of Signs and how to keep Visiting Accounts, Obstetrical Memoranda, Clinical Emergencies, Poisons and Antidotes Dose Table, Blank leaves for Weekly Visiting List, Memorandum, Nurses Addresses, Clinical Record, Obstetrical Record, Birth Record, Death Record, Vaccination Record, Bills Rendered, Cash Received, Articles Loaned, Money Loaned, Miscellaneous, Calendars for 1904 and 1905. Bound in Morocco, Red edges. Pages 124. Price *Free*. The Dios Chemical Company, 2940 Locust street, St. Louis, Mo. 1904.

This is one of the neatest and most complete Visiting Lists offered to the profession. The Dios Chemical Company propose to furnish a limited number of this unexcelled Visiting List to the profession absolutely free of any expense. The doctor will readily recognize that the Dios Company is saving no expense in keeping its name prominently before the profession, for whom it manufactures products, of more than ordinary merit, exclusively for the physician to prescribe. Those of our readers who desire a complete Visiting List, have only to write a postal card to the Dios Chemical Company, St. Louis, Mo., and they will receive it, postpaid.

Pain and its Indications. By Edward C. Hill, M. D., Professor of Chemistry and Toxicology, Denver and Gross Medical College.

Pain, from the standpoint of the patient, is the most important of symptoms. To recognize its cause and give relief is the first duty of the physician.

Dr. Hill has written what may be considered an "encyclopedia of pain," enabling the physician to trace this symptom to its origin and then suggesting the indicated remedy or remedies.

This work has been carefully classified, so as to present the facts in the most available form for the physician's use.

It will be found a valuable work of reference and an indispensable vade mecum in the treatment of this symptom.

It abounds in valuable prescriptions, garnered from many sources.

Treatment, as a matter of fact, occupies a very important part, it being the object of the author to point out the indications through which the cause of each and every pain can be reached, so as to effect a cure when possible, as well as to indicate the remedies of most value in each individual case, to be used for the purpose of giving relief. Cloth, Gilt Top, $1.00. G. P. Engelhard & Co., Publishers, Chicago.

Literary Notices.

April Lippincott's Magazine.—There is an acknowledged attraction about the unknown. Hence the title of the complete novel in the April number, "Incognito," is happily chosen. The author, Helen Sherman Griffith, a niece of the distinguished General Sherman, shows decided talent and originality. "Incognito" deals with the social experiences both at New York and Newport of His Majesty, the King of Ehrlund, who visits the United States incog. in order to escape the storm of indignation which is sure to follow his rash proclamation relating to royal marriages: He has declared that a king may marry whom he pleases. His adventures and the happiness which overtakes him before he is discovered are told with so much grace by Mrs. Griffith that it would seem like not "playing fair" to spoil the readers' pleasure by so much as a hint.

An Irish tale by Seumas MacManus is called "The Penalty of Greatness." It abounds in national wit turned against a politician whose vanity causes his downfall. Baroness von Hutten contributes a lively story "About Young Maria Ibbetson." Young Maria makes Old Maria trot a fast pace to keep up with her. This is in the vein best adapted to the Baroness's style. An easy dialect story by Ella Middleton Tybout is called "The Feast of Locusts," which, though rather hard on the minister, is irresistibly funny. "How the Professor Reduced Love-Making to an Exact Science," by Joseph Blethen, gives a clever instance of a learned man's choice of a wife. An appealing little story about General Grant and an organ-grinder is by George Seibel. Its title is "Tonio's Gen-

eral." The latest doings of the "Wee MacGreegor" are embraced in the story entitled "For Grandpa Purdie," by J. J. Bell.

A most agreeable paper by Elizabeth Robins Pennell is "The Woman Question in Utopia;" Professor Cornelius Weygandt, of Pennsylvania University, writes of pleasant times he has spent "With Mr. W. B. Yeats in the Woods of Coole;" and "Personal Characteristics of Emilio Castelar" is translated and edited by Theodore Stanton.

Conspicuous among the timely articles which The Living Age is furnishing its readers is "The War and the Powers," by that shrewd observer who writes for The Fortnightly Review over the signature of "Calchas," which appears in the number for April 2. Equally notable, in the number for April 9, are "The Slav and his Future," by the distinguished scholar, Emil Reich; "The War in the Far East," by Prince Kropotkin, and "Bushido, the Japanese Ethical Code," by Alfred Stead.

The April-June Forum opens with an exposition by H. Litchfield West of the present outlook in "American Politics," with particular reference to the Presidential nominations. A. Maurice Low's review of "Foreign Affairs" is devoted mainly to a history of the diplomatic action preceding the Russo-Japanese War, and includes the full text, not previously published, of a remarkable communication affecting the relation of Russia to China. The article on "Finances," by Alexander D. Noyes, analyzes the effect of war upon financial values, and explains the causes of the demoralization of the cotton and wheat markets. Recent progress in "Applied Science" is described by Henry Harrison Suplee, with special attention to engineering problems. The feature of recent "Literature" discussed in Herbert W. Horwill's article is the growing demand for books of popular criticism. A comparison of "Music in America and Abroad," by Joseph Sohn, includes a protest, effectively supported by illustrations, against the spirit of commercialism in art. Articles on "The Educational Outlook" and "Educational Research" are contributed by Ossian H. Lang and Dr. J. M. Rice, respectively, the former dealing mainly with the organization and management of urban schools, and the latter with the need of a new basis in supervision. The present number concludes with two special articles, one of which, Grant Allen's "Personal Reminiscences of Herbert Spencer," was written in 1894, on the understanding that it should not appear until after the philosopher's death. The other is a plea for "A National Sculpture Society," by William Ordway Partridge.

May Lippincott's Magazine.—The May number of Lippincott's is notably stirring and strong from the opening page of its novellette through to the close of the last short story. "Figs from Thistles" makes Frederic Reddale's third appearance through the medium of a long tale in this Magazine, and his work may be honestly described as good, better, and best. This last shows maturity in both the plot and the handling of it. Its heroine, Janet Persis, is young and pretty, yet too prudent to marry for love alone, after an apprenticeship to poverty as one of seven daughters of a country clergyman. For this reason she falls an easy prey to the plans of an anxious mother in regard to her son, a Baronet, of splendid physique but of infantile mentality. The wedding takes place and then the real tale begins and the reader is devoured with desire to know in a hurry whether the mother's amazing scheme is to thrive or come to naught.

Heading the list of seven short stories is "In the Springtime," by Henry Wysham Lanier, a happy mingling of spring rain and loving. A rousing sea-story by Patrick Vaux, is entitled "Grit: A Tale of the next War." "Lavender," by Lizette Woodworth Reese, is a touching story of an erring girl and a mother's faith rewarded. This is remarkably well told. Another one of Ella Middleton Tybout's parables is called "The Blast of the Trumpet," and sustains her reputation for humor. "The Solution," by Juliet Wilbor Tompkins, is about the trials of a sensitive over-tall girl and how she clears away the shadow which threatens to spoil her life. Prince Vladimir Vaniatsky contributes a gambling tale called "Fate's Juggler" which is written in the vivacious style characteristic of the author. "A Confederate of Chaperones," by Alma Martin Estabrook, is a clever and engaging story of a girls "broken heart."

The three great topics in the news of the past month,—the Northern Securities decision, the first steps in the construction of the Panama Canal, and the progress of the war in the far East,—are comprehensively treated in the Review of the Reviews for April. In addition to the editorial summaries, Mr. Walter Wellman sketches the personnel of the Isthmian Canal Commission, which has just sailed for Panama, and outlines the successive stages of its work. Dr. E. J. Dillon, the well-known English correspondent and writer on Russian affairs, discusses the question, "Has Russia any Strong Man?" Dr. G. Frederick Wright contributes an important paper on "Russia's Civilizing Work in Asia," and there are brief summaries of "Russian Opinion on

American 'Meddling' in the Far East," and "What the People Read in Russia," besides ten pages in the department of "Leading Articles of the Month" made up from current discussions of the Russo-Japanese war in the leading European reviews. Other noteworthy articles in this number are: "American Literary Influence Abroad," by Charles A. L. Reed; "The Magnitude of American Benefactions," by George J. Hagar; "The Yellow-Pine Lumber Industry in the South," by W. Watson Davis; "School Gardens in Great Cities," by Helen C. Bennett; "A Garden City in England," by William H. Tolman; and "A Model Industrial Village," by F. H. Stead.

Abstracts of the Leading Articles of the Month.

The Treatment of Colds in the Head.

A. Alexander Smith (New York State Journal of Medicine) believes that many so-called colds are communicable and consequently isolation may be a means of prevention.

Among those who are prone to the so-called contraction of colds, both adults and children are protected against them by the pretty constant use of cod liver oil, particularly, of course, those who have a low power of resistance. Also, in those who are subject to disturbance of digestion, particularly if this depends upon some diathesis, such as lithemia, for example, the timely treatment of such diathesis will often prevent what seems to be marked susceptibility to the development of colds. In many instances fatigue and anxiety diminish the resistance or, at least, increase the susceptibility to colds.

If the temperature is 100 deg. or over it is best that the patient remain at home and, better still, in bed. The use of opium and quinine at night, with a cathartic in the morning, often yields good results; say, 5 grains of quinine and 10 grains of Dover's powder or Tulley's powder, taken at night and a hot drink and a hot mustard footbath. In the morning a saline cathartic or an active cathartic pill should be taken. This should be followed by a pill of quinine, two grains, three times a day. Frequently no further treatment will be necessary.

The "rhinitis tablet," if taken early, will often break up a cold.

The alkaline treatment is useful especially in patients of lithæmic diathesis. This consists in administering, just as early as possible, a drachm of bicarbonate of soda in half a glass of water, and repeating the dose in one hour. The dose can be made much less disagreeable by adding a few drops of lemon juice. If, after 24 hours, the cold does not seem to be decidedly better, this alkaline dose should be repeated.

In this class of cases the salicylates often may be prescribed with benefit.

A combination of one of the coal-tar preparations, preferably of phenacetin or acetanilid in small doses, with quinine, often proves very beneficial for treating colds. These drugs are particularly useful when the skin is dry and hot, and there is unusual stuffiness in the nose, associated with muscular pains and headache. The objection to them is that while they seem to reduce the severity of the cold, they prolong convalescence if continued.

In children, the giving of small doses of tincture of aconite will often be found useful. It is easy to take, it produces mild perspiration and often acts admirably. It may be given in doses sufficiently small to allow of its repetition every hour. In those under twelve years of age it is preferable to any of the disagreeably-tasting preparations.

The writer does not believe in local treatment by means of sprays, although admitting that it often gives temporary relief, since such measures are too likely to cause middle-ear involvement.

In convalescence from a catarrhal cold cod liver oil is often of the greatest service; it will produce an absolute cure, and will often prevent a recurrence. For those depressed by the influence of a catarrhal cold it is one of the best of tonics. For those who find great difficulty in taking cod liver oil quinine in small doses—one grain, three times a day, or else one of the vegetable bitters or sometimes an iron and bitter tonic may be given.

Contribution to the Study of the Achilles-jerk

Walton and Paul (Journal of Nervous and Mental Diseases) say, in concluding their paper, that

1. The Achilles-jerk is practically as constant in health as the knee-jerk. This reflex varies less in health than the knee-jerk in excursion and activity, and is the most easily elicited and uniform of all tendon reflexes.

2. The Achilles-jerk disappears, as a rule, early in tabes dorsalis, and its absence is as diagnostic of that disease as is loss of knee-jerk. We have not seen a case far enough advanced to establish tabes with persistence of the Achilles-jerk.

3. Enfeeblement of knee-jerk in health on one side or both may be due to prior toxic influence, as diphtheria. This may also be true of the Achilles-jerk.

4. The front-tap (a plantar flexion of the foot when the tabialis anticus is smartly tapped with a hammer) is present, generally

on both sides, in about 40 per cent. of individuals in ordinary health; in some it is very active. Its presence alone, even if active, does not establish disease or indicate excessive irritability of the nervous system.

5. In organic disease, the front tap is generally increased with the other reflexes in hypertonic, and decreased or wanting in hypertonic states.

6. In so called functional disorders, hysteria, neurasthenia, and unclassified psychoses, the author finds the front tap present in 71 per cent. of cases.

An Anomalous Superficial Dermatitis Occurring During Typhoid Fever.

Rolleston and Mercer (British Journal of Dermatology) describes the case of a woman, aged twenty-eight years, with a typical attack of pronounced typhoid fever, in whom, besides the ordinary typhoid roseola upon the abdomen, there was an eruption of peculiar round and oval lesions resembling the early stage of seborrhœic eczema. These rapidly increased in size and number, there being about twenty small round circles and oval areas of varying sizes. The lesions began as erythematous macules, slightly rough to the touch, and scarcely raised above the surface. A greasy, brownish-gray or greenish scale formed on this erythematous base resembling closely a flat limpet in shape. Upon the flattened apices of several of these scales there were yellowish, cheesy nodules, but no distinct pustulation. The scales after a time separated spontaneously, the skin beneath being normal in the centre, but presenting an erythematous margin which gradually broadened and faded, in this way producing confluent rings. The eruption was practically limited to the lower part of the chest and front of the abdomen. Bacteriological examination showed the staphylococcus albus, but no typhoid bacilli nor any fungus.

Prophylaxis of Puerperal Eclampsia.

Douglas H. Stewart (American Journal of Obstetrics) says that deficient nitrogenous elimination is such a sure forerunner of puerperal eclampsia, that some of the French authors almost justify the use of a new name—stercoræmia gravidarum—for this disease.

The skin must be stimulated by means of the hot-pack, irrigation of the bowels with hot saline solution must be thoroughly and frequently done, and frequent small venesections may be performed. The softened pulse following venesection is due to the withdrawal of toxines which irritate the nerve centers, rather than to the mechanical effect of abstraction of blood from the circulation.

The Etiology of Locomotor Ataxia.

According to Mercks Archives the question of the relationship between locomotor ataxia and syphilis is not one of scientific, moral or medico-legal interest merely; it is a question of great practical importance, for on the determination of that relationship depends to a great extent our treatment.

The writer says, some two years ago we concluded an editorial note in the Archives with the following words: "Where there is a specific history, mercury and the iodides generally prove very beneficial; but that each case of locomotor ataxia is etiologically connected with syphilis, we are very far from believing—the dicta of Erb, Strumpel, and other authorities notwithstanding." Since the above was written many facts have accumulated which seem to demonstrate the correctness of our view. The man who was chiefly and primarily responsible for the dictum, "No locomotor ataxia without previous syphilis," is Fournier, and it must be admitted that his material amply justified him in formulating such a dictum. Among a thousand tabetic patients, Fournier found that 925 (i.e., 92.5 per cent.) had at one time or another suffered with syphilis. Superficially considered, this is an unanswerable argument; but duly analyzed, the argument has its weakness. If we should inquire into the history of a hundred or a thousand people who sustained a fracture of the leg, we would find that at least 90% of them had at sometime suffered with measles. Would that mean that measles bore an etiological relation to fractures of the leg? The analogy may not be quite fair, but it serves to illustrate our meaning. Fournier's findings simply show that he was working on strongly syphilitic material; had he inquired into his patients' gonorrheal history, we are reasonably certain that he would have found as high a percentage of previous gonorrhea as of syhilis. And still no blame is put on the former disease.

A real scientific inquiry must not occupy itself merely with one side of the question: How many tabetics had syphilis? but it must go further and try to answer: How many syphilitics become afflicted with tabes! And if we direct our attention to this question, we shall find that the percentage of syphilitics who afterwards become afflicted with tabes dorsalis is a very small one.

There is one point which, it seems to us, the adherents of the syphilis-tabes theory have always overlooked. If tabes were always of syphilitic origin, then surely specific treatment would have a more distinct effect on the disease. We know that even on very late manifestations of syphilis, such

as cerebral gummata, etc., mercury and iodine do produce a very beneficial, sometimes a marvelous effect. In tabes, however, the effect is too often *nil*. But it is not only a negative evidence of antisyphilitic treatment that makes us question the syphilis as an important etiologic factor. The insignificant percentage of leutic patients who eventually become tabetics is a stronger argument. Reumont has only seen forty tabetics among 3,000 syphilitics—1.3%. Dr. Bermann has seen numerous cases of secondary and tertiary syphilis in Bosnia and Herzegovina, but not a single case of tabes dorsalis. Prof. v. Düring, who has had an enormous ezperidnce,expresses himself definitely: "Syphilis *per se* cannot be the cause of tabes and paralysis; because with tens of thousands of syphilitics here in Asia Minor, one can hardly find a tabetic or paralytic."

Numerous other physicians practicing in tropical and subtropical countries report similar facts; great frequency of syphilis, but great rarity of locomotar ataxia. And these facts give rise to a legitimate theory, which is gradually gaining more and more adherents, that it is the strenuousness, worry, and excesses of our modern life that are largely responsible for the condition known as locamotor ataxia. In the light of this theory,syphilis is regarded merely as a predisposing factor, tending as it does to debilitate the system, impoverish the blood, and deteriorate the resulting power of the nerve tissue. According to this theory, mercury and the iodides are distinctly injurious in cases where a syphilitic history cannot be proved with positiveness, and the best results are to be obtained from a rigid rest cure, the latter giving the nervoas system a chance to recuperate from the excessive demands that had been made upon it.

Novel Method of Relieving Paroxysms in Pertussis.

Jacob Sobel (Archives of Pediatrics)suggests a plan of relieving the paroxysms in whoopingcough first suggested by Naegeli in 1889, but not mentioned in the standard works. This consists in pulling the lower jaw downward and forward in the same manner usually employed by anesthetizers. He tried this in ninety-six cases and it failed in only nine, or in 9⅜%. He concludes his paper as follows:

1. Pulling the lower jaw downwards and forwards controls the paroxysms of whoop ingcough in most instances and most of the time.

2. The method is usually more successful in older children than in younger ones and infants.

3. In cases without a whoop the expiratory spasm with its asphyxia in generally overcome, and in those with a whoop the latter is prevented.

4. As a single therapeutic measure for the control of the paroxysms it deserves a place in the treatment of pertussis and is as successful as any single drug, or even more so,

5. Mothers, nurses and other attendants should be instructed in its use in order that the oncoming attacks, especially at night, might be arrested.

6. The manipulation is harmless, painless and easy of application without any of the ill effects of drugs; it offers a maximum good effect with a minimum derangement.

7. The only contraindication to its application is the presence of food in the mouth or esophagus.

8. Patients treated in this manner are less likely to suffer from complications and sequelæ than those treated only medicinally; they emerge from the disease in far better condition, less exhausted and less emaciated because vomiting has been controlled.

9. It is advisable to try the maneuvre in other spasmodic coughs and laryngeal spasms (laryngismus stridulus, pressure of enlarged cervical and bronchial glands, influenza, glottis spasm in catarrh laryngitis), although my experience has seemed to show that it is far less efficacious in these conditions than in whoopingcough.

10. This method, being directed mainly to the control of the glottis spasm, does not preclude the advisability of supporting and sustaining the patient, guarding his gastro-intestinal tract, establishing equilibrium in the the nerve centers and affording him every possible hygienic advantage.

11. It is particularly indicated in instances complicated with diffuse bronchitis, broncho-pneomonia, convulsions, epistaxis, subconjunctival or subcutaneous hemorrhage, or sublingual ulceration, and in those children who by virtue of age, the presence of rachitis, scrofula or general debility are predisposed to serious complications and seqnelæ.

Sodium Salicylate in Chorea.

Lees in The Brit. Med. Jour., believes that chorea is in all probability a disorder of the whole cerebral cortex, and possibly of the nervous system in general, rather than of the Rolandic area of the brain alone. The morbid blood condition is associated with rheumatism, both disorders are due to the same infection and in the majority of cases he thinks that chorea may be called cerebral rheumatism, although the state-

ment can not be absolute, by reason of the fact that other toxins and microbes may affect the cerebral cortex in a similar manner and it is possible that sudden emotional disturbance may produce a toxin having a like action.

Poynton holds that the one micro-organism is the cause of both rheumatic fever and chorea, but does not conclude that the latter is always rheumatic since he has met the disease after erysipelas, measles and during tubercular meningitis, and states that it is moreover a matter of speculation as to how much the chorea may be due to focal lesions and how much to the toxins of rheumatism. He considers that chorea is an infection of the nervous system, comparable to that in tuberculous meningitis rather than that in diphtheritic paralysis.

He further believes that whatever causes may appear to enter into the pathogenesis of chorea yet it is always difficult to prove the absence of rheumatism and makes the deduction from the known associations of the two diseases that the treatment should be similar.

The author advocates the administration of sodium salicylate, with the addition of an alkali in about twice the amount of the latter to the former, this proportion being considered of importance.

The success obtained seems to depend upon the amount given daily. The dose of sodium salicylate for a child 6 to 10 years old should be at first 10 grains with 20 grains of sodium bicarbonate, which may in two or three days be increased to 15 and 30 grains respectively and after another like period of time to 20 and 40 grains every two hours during the day and every three hours during the night; 10 doses in the 24 hours; thus increasing the daily dose from 100 grains to 150, and finally to 200 grains. While salicylate poisoning is of rare occurrence, a careful watch must, however, be kept for any unto ward manifestations, especially the peculiar deep inspiration,and if this occurs, immediate discontinuance of medication is indicated.

He says that the above plan, with rest, furnishes the most successful treatment for acute corea, although it may prove less efficacious in the chronic variety, where time may be an essential factor in the case.

Cerebro Spinal Fever.

Dr. Byrd's paper was on Cerebro-spinal Fever, and bore special reference to an epidemic which occurred in the vicinity of Madison, Florida, during the months of February and March of this year.

The paper describes the individual symptoms and shows how they vary in different cases, and how the cases themselves vary, some being so severe as to cause death in thirty hours and others so mild as to get well almost as quickly. It shows how cerebro-spinal symptoms are wanting in fully half the cases and concludes from this that it is not a local lesion but a systemic infection. The paper concludes as follows:

"The only rational interpretation of the phenomena observed that is consistent with all the facts, is embodied in the following brief summary:

"1. That cerebro-spinal meningitis may be caused by sundry organisms, but that cerebro-spinal fever is caused by the diplococcus intracellularis and that only.

"2. That the organism has a preference for the cerebral membranes, but does not necessarily attack them; consequently in any given case of cerebro-spinal fever,there may or may not be a cerebro-spinal lesion.

"3. That the organism is widely distributad in nature but in an attenuated state,

"4. That under certain combinations of environments, its virulence increases till it is capable of causing a sporadic case of cerebro-spinal fever.

"5. That if this combination of environments extends to a whole community, the result is an epidemic,which may be regarded as so many sporadic cases.

"6. That it is not contagious, and when several cases occur in the same family or community, they all come from the same cause and not from one another.

"7. That in our present state of knowledge, we have no effective means of preventing it, but there is no doubt that wholesome hygienic living will increase our vital resistance and render us less easy prey to this fell disease.

(Synopsis of paper read by Dr. Byrd, of Jacksonville, before the Florida State Medical Association, at Live Oak, Fla., April 20th, 1904.)

Some Points on the Etiology of Tuberculosis.

Arthur Latham in The Edinburg Medical Journal brings out the following points: 1. Hereditary tuberculosis is so rare as to be a negligible factor. 2. It is not proved that tuberculous patients hand down to their children tissues which are especially receptive to tuberculosis. 3. Tuberculosis always results from a pre existing case of the disease and the bacilli are conveyed by the mouth spray, by the expectoration or other discharge, and by means of foodstuffs more especially milk. 4. It is improbable that the infection often takes place from air respired through the nasal passages. 5. The tubercle bacilli, whether the infection is through the air or the food,enter the new host by the mouth in the majority of cases. 6. The bacilli may then be destroyed by the natural defensive actions of the body in the

respiratory and alimentary tracts, or they may pass into various parts of the body in the following ways: (a) By direct inhalation into the alveoli of the lungs. (b) By being brought in contact with the mucous membranes of the parts common to the respiratory and alimentary tracts, such as the tonsils, and then by passing through these mucous membranes, either with or without local changes, to the lymphatic vessels, and so to the cervical, tracheal, bronchial, or other glands. (c) By being carried to the stomach and intestines. 7. The spread of tuberculosis within the human body is not by the blood stream, save when generalized miliary tuberculosis is found. 8. The spread of tuberculosis within the human body is by the lymphatic vessels and lymphatic lacunæ. This fact may explain why the lungs are chiefly affected in the adult, and bronchial glands chiefly affectad in the young child, as the age at which the change begins corresponds with the age at which a considerable alteration in the lymphatic paths in the neighborhood occurs, owing to the involution of the thymus.

Some Methods of Treatment of Carcinoma

J. McFadden Gaston, of Atlanta, Ga., (International Journal of Surgery, January, 1904) states that efforts have been made to starve tumors by ligating vessels. Even excision of the external cartoid artery has been practiced for the purpose of devascularization of the malignant area. Yet the tumor itself is allowed to undergo other changes after the main operation is performed. After these measures the patient is left severely alone until recurrence takes place. It is just at this time that increased vigilance and treatment are demanded. A bulwark must be set up around all healthy tissues, and the soldiers within the fortifications must be always on guard against the inroads of the enemy. Many rely upon alteratives and tonics for this purpose, and a strong trophic influence is exercised by electricity, and thus absorption of the foreign tissue is favored. Electrolysis and cataphoresis offer great advantages over the repeated use of the knife or the galvanocautery. They can be combined in such a manner as to be used at regular intervals with no pain, and so as to keep up with the diseased condition; and even when the granulating process is set up, the effort should be to promote a trophic action and to decrease the desired cells. Both trophism and atrophy are needed, and this is the known action of the two poles of a galvanic battery. The positive pole can be used wherever devascularization and atrophy are demanded, and the negative pole wherever increased blood supply is preferred. It is by means of this method that we can obtain an absorption by the lymphatic system of all extraneous material other than that which is already changed into gasses, such as hydrogen, oxygen and chlorine. Many of our other elements are present in the body in small quantities, such as carbon, flourine, iron, phosphorus, sulphur, calcium, potassium, sodium and magnesium. It is only in combination that they can enter into cell formation. It is a scientific deduction, therefore, that if moisture is removed the biology of the tumor is radically interfered with. In this manner a very gentle current of electricity may influence a large area of diseased tissae.

Any one may perform the same experiments which have satisfied the writer of this paper. Place a piece of tumor which has been excised between the poles of a battery having a needle at each end, and at one end bubbles will issue; if a sufficient time is allowed, the tumor is dried and hardened. This is a perfect state of preservation similar to a mummy.

When medication is combined with the action of the positive pole a cataphoric action is established and cell after cell by endosmosis and exosmosis carries the medicine into the area of the current of electricity. A large area on the abdomen can thus be infiltrated with antiseptic chemicals from a small point in the cervix; or again, a small point can be influenced from a large electrode, which may be a common sponge soaked in salt water or in Donovan's solution of bichloride solution, or some other electrolyte.

Paget's Disease of the Umbilicus.

Colcott Fox & Macleod (British Journal of Dermatology) report a case of this disease of the umbilicus and sum up their remarks as follows:

Although the affected epidermis was that of the umbilicus and not the areola of the nipple, still the changes present in it, the peculiar degenerated prickle cells, the occurrence of the dense sheet of plasma cells infiltrating the underlying papillary layer of the corium—in short, the whole historical architecture—were similar in every detail to that which has been repeatedly described in the typical cases of the disease. These initial peculiar cellular changes in the epidermis, allied somewhat to those which occur in psorospermosis follicularis vegetans (Darier's disease), could be no longer mistaken for those of chronic eczema or psorisis, and it is unnecessary to repeat any labored details with regard to the histological diagnosis from these affections. It would seem that the histological changes in the epidermis in Paget's disease are

characteristic and pathognomenic, whether the affection occur in the nipple, the umbilicus, or the genitalia.

In this case there was no evidence of definite malignant change in the epidermis. The degree of proliferation was limited, and the basal layer was intact. It has been asserted that the peculiar change of the epidermis is malignant from the first. This does not seem to be so any more than ordinary warts, the warty growths in xeroderma pigmentosum, or pigmented nevi (moles), are malignant from outset. They may be all described as precancerous lesions of the skin which have a potentiality more or less certain of becoming malignant.

It has never been demonstrated, and it seems highly improbable, that the degenerated cells which occur in the epidermis or the epithelium in Paget's disease can take on malignant characters. It appears to the authors, however, more reasonable to assume that the malignant growth originates in epithelial or epidermal cells, which, not having degenerated, have reverted and assumed a capacity for proliferation through the prolonged action of some cause which, acting most powerfully on undifferentiated cells, produces their degeneration, than in a matrix of cells which has been deposited there at some period more or less remote.

The general histological appearance suggested a chronic inflammatory disturbance, involving the papillæ and leading to proliferation, edema, and degeneration of the epidermal cells, and to the formation of a resistant cellular infiltration in the upper layer of the corium.

As to the most important problem of all, the actual cause of this singular precancerous dermatis and the subsequent carcinoma, their researches did not seem to throw any light and they felt as much in the dark as when Paget described it in 1874. The theory of Darier and Wickham that the degenerated cells in the epidermis were coccidia and caused the disease has gone out like a pricked bubble, but it has left a blank, for it is a disease which is readily explicable on the assumption that it is parasitic in origin. Like the causation of cancer it remains an unsolved problem. Perhaps in the ultramicroscopical field an organism may yet be found.

The Nervous Complications and Sequelæ of Smallpox.

Aldrich (American Journal Medical Sciences, February, 1904,) says that the variolous process possesses in a marked degree the power to awaken latent predispositions to nervous disease, either gross anatomical or purely functional.

Convulsions are often seen in children. Of psychoses, smallpox is placed sixth in order of frequency by Berkley as an etiological factor.

We may recognize four types: 1. Initial delirium. 2. Febrile delirium. 3. Colapse or exhaustion delirium. 4. True post variolous delirium. The initial delirium is quite constant, usually appearing towards the evening of the second or third day. The mind wanders, the speech becomes incoherent and a true confusional condition develops. Grave changes in the mental state with peculiar speech disturbances have been observed to follow variola.

These mental changes seem to be a part of widespread changes in the nervous system. True dementia paralytica has been observed after variola. Meningitis is rare. Paralysis is frequent, either as a neuritis or a paraphlegia of spinal origin. E. Wagner has observed on post-mortem examination a localized non-purulent encephalic disease. Areas of simple softening and blood extravisations may occur in the brain and produce aphasia, menophlegia or hemophlegia.

With the initial severe lumbar pain at the initial stage a slight degree of paraphlegia is often present, manifested by subjective numbness, tenderness and loss of power. Sometimes the bladder is involved.

Rarely acute ataxias are observed, probably ataxic forms of neuritis. Disseminated sclerosis, acute myelitis, poliomyelitis anterior and a rapidly ascending myelitis resembling Laudry's paralysis have been observed.

Pelvic Exudations.

Carmichael in The Journal of Obs. and Gynec. of the British Empire, states that in 26 cases of parametritis 80% were due to childbirth, and the remaining cases from surgical operation. The exudations were most common in the lateral parametria, more especially the left, but were liable to spread to, and involve the other parametria, showing no tendency to limitations along certain lines, as some anatomical observations might lead us to suppose. The majority of the cases when admitted to the hospital no longer suffered from fever, and that the presence or absence of this symptom is not a definite evidence of the appearance of suppuration. In leucocytosis there is a much more reliable means of diagnosing the presence of pus, and that where leucocytes steadily increase on repeated examination and especially when they reach the number of 2000 per cm. or over, surgical interference is justifiable. The majority of pelvic exudations cure by absorption rather than by suppuration. The most frequent cause of suppuration is the streptococcus

pyogenes. The hot air treatment has proved a valuable addition to the therapeutics of this condition, more especially in large or very chronic exudations, or in those patients where pain and discomfort result from cicatrices and thickenings in the parametria, the remains of former exudations. The chief contraindications to this treatment are fever, menstruation and heart disease.

Some Reasons for Preferring Ether for Anesthesia.

Williams (American Journal of Obstetrics and Diseases of Women and Children) gives a few reasons why ether is better in his opinion than chloroform as an anesthetic:

1. It is always or nearly always possible to procure a fresh supply. This is not so with chloroform, as that made for anesthesia is not kept by all druggists, a prescription for this drug being filled by the commercial article, which, of course, is totally unfit for anesthesia. Only a day or two ago I heard of a patient who was operated upon after being put under the influence of spirits of chloroform.

2. So far as statistics go ether is the safer, about one death occurring in ten thousand cases; chloroform one in two thousand. The educated public know this and frequently request that chloroform shall not be used. Personally, I do not think that this gives the relative safety in competent hands.

3. The patient can be placed under ether nearly, and in a good number of cases, quite as easily, quickly and quietly as with chloroform. In point of fact, I have etherized a patient in exactly ten seconds, he, taking only five inspirations. This was a strong, robust young man, who was operated upon for hernia. The anesthetic was administered by fitting over the nose and mouth a rubber mask connected to the ether bottle by a tube, the bottle being plunged into boiling water a few seconds previous to beginning the administration. Leaving out the element of speed, this method has nothing to recommend it.

4. With ether you can keep the patient in pretty much the stage desired; with chloroform I have seen them go quickly from sensation of pain to deep narcosis.

5. When we are compelled to place the anesthesia in the hands of a layman, or, as has been done, the domestic servant, I believe ether is safer than chloroform. The latter is likely to kill early, during the first few inspirations or when struggling occurs —just the time when one not familiar with the vapor would crowd the anesthetic. This point, no doubt, will be disputed.

6. When organic heart disease is present ether, for a time, stimulates the heart. I have repeatedly seen patients leave the table in a better cardiac condition than before the operation.

7. I have administered ether to alcoholics, those with pulmonary tuberculosis and with pathological kidneys, and believe it is as safe as any general anesthic, if not safer.

Toxines of Insanity.

James W. Putnam (Buffalo Medical Journal) mentions the psychoses produced by the toxines of Bright's disease, diabetes, exophthalmic goitre, the acute infectious diseases, pregnancy and the puerperal state, and chronic constipation, which often develop into cases of true insanity.

There is no difference in the symptomatology of the insanities produced by the toxines of the æthereal sulphates, (as indican or idoxyl-potassium sulphate, and skatol or skatol-potassium sulphate), both of which are formed as results of fermentation and decomposition in the intestinal tract, and in the symptoms of acetone poisoning. The onset is gradual, there is dull, heavy headache, hypochondriasis, mental confusion, and sometimes stupor. There is usually no fever.

In conclusion, he quotes from Peterson: "We do not know how frequently autointoxication from absorption of intestinal poisons determines insanity, but the facts collected point to the origin of a considerable number of cases from this cause;" also from Brower and Bannister on the same subject: "Intestinal autointoxication is one of the best established ætiological factors of insanity. In the severer infectious disorders, mental derangement is in many cases, and to a large extent, due to the toxines."

Somnoform.

Sydney W. Cole (British Medical Journal), makes a report upon twenty experiments with somnoform as a general anæsthetic. This substance is a mixture containing æthyl chloride 65 per cent. methyl chloride 30 per cent., and æthyl bromide 5 per cent. It has been largely used in France, and is said to produce anæsthesia very rapidly, without danger and with no ill after-effects.

He concludes his paper as follows:

1. The chief danger is respiratory paralysis.

2. There is no danger of heart failure, provided respiration has not ceased.

3. After cessation of respiratory movements it is easy to restore the patient by artificial respiration.

Paralysis of the cardio-inhibitory nerve

fibres by æthyl bromide makes it a valuable anæsthetic, since sudden death in chloroform anæsthesia is due to inhibition of the heart through stimulation of the cardio-inhibitory center. This is usually only seen in the early stages of chloroform administration, the danger being past when the medullary centers are exhausted. These facts have led the author to the theoretical deduction that by combining chloroform and æthyl bromide, this danger could be eliminated in prolonged anæsthesia.

Splenopexy for Wandering Spleen.

Basil Hall in The Annals of Surgery, describes what he consideres the ninth case recorded. Although the mortality of splenectomy for wandering spleen has been reduced to 10%, it can hardly be regarded as the ideal operation until it is demonstrated that fixation is impracticable. The patient, a married woman aged 30, was admitted into the Bradford Infirmary on November 20th, 1901. She stated that she had been subject to billious attacks since she was 14 years of age. Married at 21, and had had four children. The first labor was difficult and protracted, the subsequent ones normal. Had not been quite well since the first confinement. Has had a constant dragging pain in her left side when walking about, which has grown worse for the last seven years. Had lately suffered from attacks of acute abdominal pain coming on suddenly after some sudden movement. During these attacks she was very faint,and a large tender swelling could be felt in her abdomen. On admission patient was a rather thin, healthy-looking woman. Abdominal walls flaccid; a firm elongated tumor could be felt in the left hypochondrium, projecting below the costal margin and reaching nearly to the middle line at the umbilicus. It moved with respiration, and could be displaced by palpation in various directions; when the patient was standing it could be pushed almost into the right iliac fossa. The tumor was tender on manipulation and presented a well-marked notch on the anterior border. The urine was free from albumen or sugar. Blood count was negative.

Operation.—Under ether an incision four inches long was made along the outer border of the left rectus abdominis. The lower pole of the spleen was exposed by this incision, and the whole organ was delivered through it without difficulty. It was $7\frac{1}{2}$ in. long and $3\frac{1}{2}$ in. wide in the center; except for its size it was to all appearance a normal spleen. Whilst considering the advisability of removal, which would have been easy on account of the long pedicle, it was noticed that the notch on the anterior border was only two or three inches from the lower extremity of the spleen, and the depth of the notch was such that the lower pole of the spleen was only connected to the rest of the organ by a comparatively narrow isthmus. This at once suggested an easy means of fixing the organ. After rendering the parietal peritoneum raw in the splenic fossa in ordar to excite adhesions, the main body of the spleen was replaced in the abdomen; then, whilst the lower pole was held in the wound,the edges of the peritoneum were drawn tight by a purse-string suture until they tightly gripped the narrow isthmus in the notch. The abdominal aponeurosis was next sutured in a similar manner until it gripped the isthmus in the notch sufficiently tight to produce marked congestion of the new isolated lower pole. The left rectus was drawn outward somewhat, so as to overlap the projecting pole of the spleen as much as possible, and the skin incision sutured. A prominent lump the size of half an orange remained. There was no appreciable shock during or after the operation. For the first 24 hours after the operation the pain was severe and required morphine for its relief. Two days later a small opening was made through the skin and a drainage tube inserted, as fluid was collecting in the dead space beneath the rectus muscle round the projecting spleen. After this recovery was uneventful; the patient was entirely relieved of her symptoms, could undertake her household duties or any active exertion,and remained well at the end of 12 months.

A Plea for the Removal of a Minimum Amount of the Broad Ligament in Salpingo-Oophorectomy.

J. W. Bovée, in Am. Gyn., suggests the following points in his paper:

(1) The unnecessary destruction and weakening of the broad ligament by the usual method of salpingo-oophorectomy; (2) the complications arising from such methods; and (3) the proper plan to obviate such destruction of the broad ligaments.

Concerning the first point, the author contends that as the Fallopian tube runs along the very top of the broad ligament and the ovary is lightly attached to the posterior surface of it the removal of the usual V-shaped portion of the broad ligament is absolutely unnecessary in salpingo-oophorectomy.

The complications arising from this method of operating include (1) secondary hemorrhage from slipping of pedicle ligatures; (2) leaving portions of infected tubes; (3) re-infection from the uterine cavity through

stumps apparently healthy at time of operation; and (4) abscesses. Subsequent pregnancy has been known to follow double ablation of the appendages by this method.

A very distressing accident that has resulted from placing the ligature on the infundibulo-pelvic ligament too close to the ilium and around too much of it has been the partial or complete severing of the ureter. The worst result is the removal of the supporting function of the broad ligament with subsequent retroversion.

He places three clamps as follows: One on the infundi; bulo-pelvic ligament close to the fimbriated end of the tube, another is placed at the Fallopian tube close to the uterus—but not including the trunk of the utero-ovarian vessels; a third is placed on the ovarian ligament. The tube is carefully dissected from the top of the broad ligament up to the forceps clamping it, the wound closed by a continuous catgut suture and the clamp removed. The ovary is separated from the broad ligament and the ovarian ligament is severed just outside of the forceps. The wound is similarly closed and the clamp removed. The short end of the uterine stump of the tube is finally cut off within the uterine tissue and this wound is closed. As a result of this method, no portion of the broad ligament suffers.

Technique of X-ray Therapy.

The method of using the X-ray for therapeutic purposes, as employed by Dr. Buchanan, in the Phil. and N. Y. Med. Journals, is as follows:

The patient is seated with the part of the body to be treated in front of the tube, about 12 inches from the same. The surrounding tissue is protected by sheets of lead or, in the case of the face, by a mask covered with lead ar tin-foil, the latter giving quite as much protection as the sheet lead. It is not necessary to have the protecting material grounded. The time of exposure should vary from 5 to 10 minutes, as longer exposures are apt to produce burns, and the interval between the exposures should vary from 3 to 4 days. Exposures of long duration and at frequent intervals will certainly produce violent dermatitis and, in some cases, even severe burns. The writer is of the opinion that superficial carcinoma and other similar affections of the skin can be cured by means of the X-rays without any burning whatever.

The danger of producing a burn is in proportion to the time of exposure and the distance of the part from the tube. At a distance of 12 inches from the tube and with an exposure of 10 minutes the danger of a burn is very slight; yet, if the distance to be decreased to six inches, the time of exposure being the same, the danger of producing a burn will be at least four times as great. The liability of the tube to produce a burn increases as the square of the distance from the skin surface decreases.

Considerable has been written about the kind of tube which is best suited for X-ray therapy, the soft tube or the one with but a feeble penetrating power being considered by most writers to be the best. He has found that a tube of a medium-high vacuum is better than a tube with a low vacuum. A good tube is one which will make a good skiagraph of the hip-joint of a person of average development.

Experiences in an Epidemic of Cerebro-Spinal Meningitis.

Travers, in the London Practitioner, reports forty cases of cerebrospinal meningitis treated in the Hardwicke Fever Hospital, Dublin, during an epidemic in 1900. Four of the cases were considered doubtful and excluded from consideration. Most of the remaining thirty-six patients were between five and twenty years of age. Six were over twenty, three were under five. Females were attacked more frequently than males, in the proportion of two to one. The onset was regularly abrupt and severe. The course of the disease was so irregular as to render it impossible to sketch a typical case. The fever was notable for its irregularity in the height and its varying duration. Headache was never absent, in the majority it constituted the most prominent symptoms. The situation of the pain was more often frontal, than occipital. Kernig's sign was present without exception. Ophthalmoscopic examinations furnished surprisingly negative results. Of 36 cases 14 died, a mortality of 38 per cent. Bacteriological examinations of inflammatory exudations found postmortem showed the diplococcus intracellularis in every case save one.

The Treatment of Prolapsus of the Funis.

Reynolds Wilson (Obstetrical Society of Philadelphia) divides the treatment of prolapse of the cord according to the stage in labor and the character of the presentation in cases in which this complication occurs.

For so-called presentation of the cord with deficient dilatation he advises cervical packing with tamponing of the vagina in order to induce dilatation. After rupture of the membranes with beginning dilatation he inclines to manual dilatation with extraction either by forceps, in the rare cases in which the latter are indicated, or by version.

As to presentation the vortex and face

are the most difficult to deal with owing to the difficulty of initiating the management of the case until after engagement, when the danger of compression is greatest. Breech presentation, as a rule, offers the best opportunity for prompt extraction, especially as in a large number of breech cases the presentation is an accident accompanying premature delivery. The great danger in these cases is the chance of coiling of the cord about the neck, a frequent cause of death of the the fetus in breech presentation.

The writer believes that the conditions in prolapse of the cord are critical as far as the child is concerned and that they require prompt measures of treatment. The prognosis is so favorable for the mother that the child is apt to be disregarded in the delay incident to expectant measures such as posture and the slow dilatation by hydrostatic bags.

Treatment of Fractures of the Neck of the Femur.

C. E. Thompson (St. Louis Med. Review) concludes that the teachings and writings of surgical authors have been rather discouraging to the general practitioner on this subject.

That in all cases of fractured femoral neck, firm body union and useful limbs may be anticipated.

That age is not a counter indication to treatment nor to obtaining bony union.

That the patient is best treated by reducing the fracture and immobilizing it.

That this is best accomplished under anesthesia and by the use of the plaster-of-paris spica.

That the immobilization should be continued for a long time, and three months should elapse before allowing weight on the limb

The Buck's extension with weight and pulley is not sufficient immobilization to obtain bony union.

That the use of aparatus in these cases is expensive, hard to obtain when needed, not so efficient in immobilization, and less convenient for the patient and nurse than plaster-of-paris spica.

That the operative treatment in old and neglected cases has succeeded beyond all expectations and deserves a place in surgery among the radical cures for troublesome conditions,

That the patients who usually suffer from the accident being old and enfeebled is a good reason why the physician should maks their declining years as peaceful and pleasant as possible.

When to Ligate the Cord.

Alex Heron Davisson (Phil. Co. Med. Society) says:

In a vigorous infant when respiration is established and uterine contraction is firm, the cord should be ligated when it ceases to pulsate.

In a vigorous infant when respiration is established but the uterus is not contracting or the placenta is detached, ligation should be done irrespective of funic pulsation.

In a feeble infant when respiration is established and uterine contraction is firm, ligation should be delayed.

In a feeble infant when respiration is not established and uterine contraction is firm, ligation should be delayed, if it is not imperative to remove the child to a distance from the mother in order to institute respiratory movements.

In a feeble infant when respiration is established but the uterus is not contracting or the placenta is detached, ligation should be done at once.

From What Point of View Must the Prognosis of Pulmonary Tuberculosis Be Regarded?

M. Behrend, in Treatment, London, remarks that the older view that phthisis is an incurable disease must to-day be given up. Statistics of Turbau and Rumf are referred to, which show that even in the so-called second stage 48.8 per cent. of those attacked recover. There is at the present time only one cure for the disease, that by the sanatorium treatment. It cannot be denied that this mode of treatment is successful in direct relation to the slight development of symptoms and physical signs; in other words, the satisfactory cases are those treated in the earliest stages of the malady. Therefore, the more advanced the disease the worse is the progress. As regards the nature of the prognosis in relation so the several symptoms and physical signs, the question to be answered is whether the progress of the malady is arrested, or whether the disease is still active. Hectic fever and continued fever are both of evil omen, and the longer the pyrexia lasts the worse becomes the prognosis. But in many cases when the patient is kept in bed for some days the temperature falls. When this is the case the prognosis is good. Great importance attaches to the condition of the heart and of the circulatory apparatus generally. And a febrile tachycardia is not a favorable sign, but it may in some cases amend when the patient is kept in bed. Brehmer has dwelt upon the smallness of the heart in phthisical subjects as being of great importance in the etiology of the disease. A strong heart

and a well-developed system of muscles generally go together, and this combination is a decidedly favorable factor in phthisis. Hence anemic phthisical patients do not, as a rule do well, anemia when marked being a very unfavorable element as regards prognosis of the disease. The condition of the alimentary canal is very important as regards prognosis. Apart altogether from the presence of tubercular disease of the intestine, many patients are capricious about their food, fanciful, and are small eaters. He considers that the prognosis is unfavorable in such patients. The state of the appetite, too, is extremely important. A nervous anemia may be one of the very earliest symptoms of the disease, and Brehmer has called attention to the fact that many phthisical patients have been "poor eaters" from their earliest youth. He quotes the work of Moritz Schmidt, who says that so long as a phthisical patient possesses a sound stomach and a strong heart, his case should not be regarded as desperate of improvement. The age of the patient, the duration of the disease, and the question of heredity, are all three important factors in arriving at a prognosis. And the author refers to the diazo reaction, remarking that when the reaction is positive, in the majority of cases an unfavorable opinion as to the outlook may be formed. We confess we attach very little importance to the diazo reaction, having found it so uncertain in its appearance, which also arises under the opposite conditions, that its prognostic value appears to us to be altogether problematical. Very important as regards prognosis are the temperament and the financial condition of the patient. A prognosis to be of real value must be founded upon a full consideration of all of the above points, as in this way only is it possible to forecast the future of the patient.

Certain Principles and Methods in the Surgery of the Paralysis of Children.

Robert Jones (London Lancet), says: There is too great a tendency shown by the physicians to turn their patients over to instrument makers. The importance of working on the muscles, stretching and lengthening the flexors in acute infantile paralysis in addition to putting the extensors in such a position that their structural shortening will ensue, is emphasized by him; being careful not to confuse muscles which have been useless for years with muscles that are paralyzed completely. The author says the manipulations of tendon transplantation and arthrodesis, in their relation to spinal paralysis. Dr. Jones advocates the use of the nearest efficient tendon, if it be strong enough, in preference to one from a greater distance, selecting, if possible, a re-inforcing muscle, the mass of which is parallel to the re-enforced. Splicing of the tendon, if done at all, should be done quite near where it is inserted to avoid a possible yielding of the paralyzed section. The writer has found that the best way is to transplant into the periosteum, if possible, by fixing the proximal part of the re-enforcing tendon into the paralyzed tendon, thus rendering it sufficiently tense to accomplish its end. In describing the operation of arthrodesis, he enumerates the advantages it presents in dealing with flail-like joints. Cerebral paralysis of the spastic type is next discussed, the idiot, microcephalic and the violent irritable type being classed among the incurable, success sooner or later following the treatment of all other conditions. In infantile hemiplegia, treatment proving futile if the spasm continues. The importance of flexing the elbow superficially, hyper-extending the wrist as the dominant deformities are pronation and carpal flexion, is particularly dwelt on by the writer, who follows the rule that the fixation of the spastic muscles in a position opposed to their contraction lessens the severity of their spasm, which is probably the explanation of the occurrence of good results. Tenotomy or tendon transplantation may be required later and every opportunity of performing tenotomy, in proper cases, should be seized. Operative, mechanical and educational treatment are involved in dealing with spastic paralysis, and if, after the expiration of twelve months, the surgeon is not satisfied with the results of his case, he had best let it alone.

Gonorrheal Puerperal Fever.

F. J. Taussig, in Am. Gynecology, says the bacteriologic findings and subsequent course, gonorrheal puerperal fever can be distinguished from streptoccic puerperal fever. According to Bumm and Kronig, the responsibility of the gonoccus in producing puerperal fever ranges between 7 and 28 per cent.

He mentions five cases which have fallen under his observation. The author states that these cases explain to a certain extent the mystery of autogenous infection. Intrauterine manipulation during labor may explain the transmission or extension of the gonorrheal infection into the uterine cavity. The puerperal uterus is an excellent breeding place for bacteria and the gonococcus is no exception to the rule. Other growths of bacteria are usually inhibited in these cases.

The patients usually do well during the first six days. The lochial discharge then becomes profuse and offensive. A glairy

character is superadded because of the large amount of mucus. It seems to be particularly irritating to the external genitals. At the end of the first week or beginning of the second chills and fever set in with pulse-rate ranging between 100 and 110. The fever runs two or three days without marked remissions and then generally subsides. Considerable tenderness can be mapped out in the region of the uterus and swollen tabes. A copious purulent or hemorrhagic discharge may persist for some time. According to Fehling, puerperal gonorrheal salpingitis is one-sided. Parametritis may result from the same cause. Localized pelvic peritonitis is frequent.

He urges the necessity of frequent careful examination of the lochial discharge in the diagnosis of every case of fever in the puerperium.

Prophylaxis is of more benefit than treatment. Prolonged rest in bed offers the best results in the author's opinion.

Remarks on the Results of Tendon-Transplantation in Twenty-Five Cases of Infantile Paralysis of the Lower Extremity.

Montgomery, in the Medical Chronicle, concludes an abstract as follows:

(1) The progress in which the gastrocnemius and soleus were adapted as dorsi-flexors of the ankle was very slow. Still there is no doubt that the work of education goes on surely and the cases improve steadily. It is here that the graft tendon acts also as a mechanical support to the foot and ankle in the way Eve has pointed out. In cases in which the acting and paralyzed muscles were more nearly allied in their action the improvement was much more rapid and the earlier results apparently much more satisfactory.

(2) The greater the length of the tendon of a paralyzed muscle to which the acting muscle was applied, the less satisfactory the early results and the slower the improvement. There is no doubt that this factor of the stretching of the paralyzed tendon or its muscle is a most important one.

(3) The results of the passive method, division of the paralyzed tendon and its suture to the intact acting one, were much inferior to those of the active method in which a slip was taken from the normal tendon.

(4) There is no doubt that at the time of the transplantation all deformity must be corrected. In 4 cases this required the excision of more or less of the astragalus, and they all did well. In several others tenotomy or tendon-lengthening or shortening was performed. This lengthening or shortening gives a much better result than simple tenotomy alone, and this is especially true in the case of the Achilles tendon in instances of equinus and equino-varus.

(5) As regards after-treatment the ideal method is to begin massage and passive movement after three weeks and gentle active movements after four.

Habitual Constipation in Infancy.

Jordan, in the Birmingham Medical Review, mentions the following points: (a) Constipation is remarkably common and its effects on infantile mortality very marked in the aggregate. (b) The slighter cases of constipation are not brought to the physician except incidentally, and very careful questioning is necessary to elicit its existence. (c) Crying and loss of appetite are particularly suggestive of such a condition. (d) Emptying of the bowels by local stimulation is an initial and occasional necessity only; it is not curative. (e) The correction of diatetic and other hygienic errors is the foundation of treatment, the internal administration of mild drugs being commonly necessary as an auxilliary. (f) The drugs chosen should be such that the dose can gradually be lessened and their administration discontinued as soon as possible. (g) Water as a beverage is a valuable adjunct to treatment, but the water of some districts is not suitable for this purpose. (h) Success can only be attained by patient treatment, continued until the bowel is quite capable of satisfactory and spontaneous movement. Too early withdrawal of drugs and personal supervision means relapse. Patients should always be warned that treatment may have to go on for an extended period, and that the immediate relief of the constipation is only the beginning of treatment.

A Case of Intussusception of the Vermiform Appendix.

Haldane (Scottish Medical and Surgical Journal) reports the case of a child of three years, who was admitted to hospital with an oblong cystic swelling in the left hypochondrium extending down to the umbilicus; no symptoms. An enema evacuated a large amount of feces and the tumor disappeared. On the following day a similar tumor, but much smaller, was found at the hepatic flexure of the colon. In the evening the child developed symptoms of peritonitis and the tumor was found about the umbilicus.

Upon operation signs of peritonitis were found over the lower portion of the ileum, the cecum was obviously distended and its coats thickened and there was an inversion of the appendix into the gut. The patient is believed to have had a chronic ileocolic

intessusception which was reduced by the enema. The peritonitis followed the reduction, the peritoneal coats of the ileum being infected with the bacillus coli communis. The invagination of the appendix either occurred at the same time as the intussusception or was secondary thereto.

Infection by the Bacillus Dysenteriae in Infants.

Fetra and Howland (Archives of Pediatrics, March, 1904) after a thorough study of the subject conclude as follows:

1. The unexpectedly great prevalence of the dysentery organism in cases of diarrhœa in infants, at least during the summer months. Of sixty-four cases examined in the Vanderbilt clinic, sixty-two were positive. This proportion is especially striking when it is remembered that these were cases in dispensary practice, where with the severe the very mildest cases are to be seen. All were ambulant cases and the stools were examined whenever there was any sign of digestive disturbance.

2. All types of diarrhœal disease are to be found among these cases. Some were severe colitis, some of the mild type. Others could only be classed as the mildest form of intestinal indigestion. The course of the disease, while usually short, was prolonged in eight cases.

3. As compared with cases of summer diarrhœa of other years, those in this series were in general much milder. This was possibly due to (a) the cool summer and (b) the increasing knowledge among the tenement population of the care of infants and their food.

4. The striking number of breast-fed infants, fourteen, not one was even moderately ill, and only one had blood in the stools.

The serum treatment was not given in a sufficient number of cases to warrant any conclusions. In some it was of apparent benefit, in others no effect was noticed.

Treatment of Suppuration of the Labyrinth.

W. Milligan, in the London Medical Lancet, states, in order to secure access to the external labyrinthine wall a free exposure of the middle ear cavity must be effected. This is best secured by the performance of the typical radical mastoid operation. He lays down the following points as guards to operation:

1. In any case of suppurative middle-ear disease where well marked nerve deafness upon the affected side is accompanied by frequent attacks of vertigo and sickness and by nystagmus, either constant or intermittent, a careful search should be made for the presence of any fistulous tract leading into the labyrinth. If found, such tract should be opened up and explored; if not found, however, an exploratory opening through the horizontal semi-circular canal or foot-plate of stapes is justifiable.

2. In all cases of suspected labyrinthine disease of septic origin the vestibule should be promptly opened.

3. In cases of chronic suppurative middle-ear disease, accompanied by the presence of cholesteatoma and erosion of the external labyrinthine wall. free opening of the area of involvement should be effected.

4. In cases of suspected cerebellar abscess, accompanied by symptoms indicative of labyrinthine involvement, the operative pathway should be via the middle and internal ear to the posterior surface of the pars petrosa—in other words, through the median wall of the mastoid antrum. In this way the labyrinth is opened up, the anterior portion of the corresponding cerebellar lobe is exposed, and any extradural abscess lying upon the posterior surface of the pars petrosa would at the same time be located and drained.

Olive Oil.

Harvey (California Med. Jour.) believes that pure olive oil is Nature's best and most healthful fat for dietetic purposes, besides possessing sterling medicinal virtues both internally and externally. This oil contains the life and energy-giving elements—nitrogen and carbon, together with the metabolic elements, oxygen and hydrogen in proper proportion to sustain and promote life.

Recent experiment in the United States General Hospital at San Francisco have shown that an unadulterated olive oil is the best possible remedy in chronic tropical dysentery. In simple ulcer of the stomach and the general ulceration and irritation of the stomach and bowels in alcoholics pure olive oil in doses of a tablespoonful to one ounce has been found very efficient. In chronic constipation, in gall-stones and jaundice the author ascribes a decided curative action to this agent as it seems to liquefy cholesterin, preventing the formation and expulsion of calculi, lubricates the bowel and promotes the flow of bile, thereby conducing to a better digestion of the food and more regular peristalsis.

In hyperpeptic conditions and post-prandial distress olive oil is of value, while in nursing mothers whose milk is deficient in amount or in fats the pure oil emulsified and combined with hypophosphites has been found most advantageous for both mother and child. He believes this is superior to all emulsions of fish, linseed and petroleum oils in the treatment of marasmus, rachitis, pulmonary or tubercular troubles and bene-

ficial in wasting diseases of children or adults where a real food tonic and fat is required.

K. Walpo (Zeit f. Heil, Prague, Vol. xxiv) has also called attention to the value of olive oil in the treatment of gastric hyperacidity, chronic ulcer, chronic gastric catarrh and constipation.

The author lays especial stress upon the importance of a pure and specially prepared olive oil free from all adulterations with cotton seed, lard, linseed, rape or poppy seed, peanut or sesame oils and speaks of the imported varieties only to condemn them.

Neuritis in Pregnancy and the Puerperium.

W. R. Nicholson (Obstetrical Society of Philadelphia): The etiology of these cases may be either sepsis, toxæmia, or lastly, pressure upon the pelvic nerves. The case of the author was reported to him as belonging to the toxæmic group, as there were no septic conditions to explain it, and as the history of the labor precluded the possibility of their having been any involvement of the nerves by direct pressure. By far the most frequent variety met with are cases due to fœtal pressure upon the lumbo-sacral plexus during labor. Forceps may be the cause of injury to the lower sacral nervex, but the paralysis which would result from a neuritis at this point are comparatively infrequently seen as compared with the paralysis of the external popliteal nerve which takes its origin from the lumbo-sacral plexus. The position of this latter plexus at the brim of the true pelvis subjects it to great chances of pressure from the presenting portion of the child, provided certain well established conditions be present These are a pelvis contracted in all its diameters, with a head well flexed and of such a size that engagement while not impossible, is nevertheless tardy. The simple and rachitic flat pelvis do not predispose to a pressure neuritis with anything like the frequency of the generally contracted variety, as the promontory in both the former types is relatively prominent and so serves as a protection to the lumbo-sacral plexus as it passes over the lines innominate in the sacra-iliac notch.

Sterilized Milk, Pasteurized Milk, or Clean Milk.

C. W. M. Brown, in the Archives of Pædiatrics, discusses the subject. He says: (1) Sterilization at 212 degrees F. is of great value, especially in cities and to the poor who lack intelligence, because it may be performed by any one and with simple or no apparatus. (2) Pasteurization at a temperature of 140 degrees to 158 degrees F. in closed vessels in 15 minutes is much to be preferred, as the milk is little changed in its taste or chemical properties from raw milk, and this temperature is sufficient to kill the pathogenic organisms and lactic acid producing bacteria. But we must agree with Holt, that all heating of milk sufficient to kill bacteria, does impair to some extent its nutritive properties, and to a degree proportionate to the height of temperature employed and the length of time it is continued. (3) When obtainable, fresh, pure, clean milk used raw is much to be preferred. (4) It is now supplied to many of the large cities. (5) There is a strong and rising demand among the laity for such milk. (6) It can be provided to all cities and towns of even moderate size if the profession will put forth proper efforts to procure it. (7) Under a general law all milk dealers should be licensed by the city or town in which they sell milk. Such license should give the health officer power to enter upon and inspect the premises upon which the milk is produced, at any time. It should also carry with it a statement on the part of the dealer that all cows producing milk which he sells have been tested for and found free from tuberculosis.

Speech Defects and Method of Treatment.

James Moreau Brown, in the Medical Standard, discusses this subject. He says:

Defects of speech, more especially stammering and stuttering, have heretofore been almost entirely overlooked by the laryngologist and allowed to go to various teachers and institutions for treatment. Lately the matter has received consideration from eminent laryngologists in this country, and excellent results as to the treatment of these conditions have been reported.

In a recent paper read before the Chicago Medical Society the subject was divided, after Behnke, under three headings: mental, pathological and elocutionary.

The mental, or emotional aspect relates to those cases which are affected at times, having complete control over the powers of speech when in familiar surroundings, but on becoming excited or in the presence of strangers, or experiencing shock of some sort, lose entire control of speech.

The pathological aspect is the condition wherein the defect of speech may be a symptom of an underlying nervous disorder such as hysteria, cholera, etc., or may, perhaps, be due to some abnormality of the upper air passages, such as adenoids, enlarged tonsils, or occluded nasal passages.

The elocutionary aspect is, perhaps, the most important, in that the treatment of these cases is taken under consideration.

In taking the history, after a thorough

examination as to the probable cause of the defective speech, a close observation is made as to the letters or words in the pronunciation of which difficulty is experienced. It is well to observe whether or not the patient stammers continually, is worse among strangers or when excited, whether or not there are contortions of the face during the effort to speak, if the extremities are moved in the effort, if the patient sits or stands at times unable to utter a word or sentence, if he can read or talk alone correctly, and whether the defect consists of only certain letters or words.

The patient, for further examination, may be placed in a reclining posture, the hand placed upon the diaphragm, and instructed to inhale through the nose, taking as deep a breath as possible, with precision and accuracy, the diaphragm brought under control of the will and the breathing and vocal mechanism combined. After this has been practiced for a short time it is astonishing to observe the amount of control which may be obtained over the organs of speech. A thorough system of breathing exercises may be outlined for practice, first pronouncing a letter, later words, then sentences, upon exhalation. This may at first be difficult, but if perfect confidence and co-ordination is obtained, the patient continuing to breathe deeply, as it were, from the diaphragm, habit is formed and the outcome is, in many cases, a full, clear and easy delivery. Caution should at first be given, as many, upon beginning, are apt to overdo the breathing in an effort to become "deep breathers" in too short a time. The exercises should be practiced upon rising and retiring and it will soon become a habit, the general health will be benefitted and the respiratory organs strengthened.

The patient should be seen as often as possible, at least three times a week, and as treatment may vary from two to six months. One case recently under my care showed marked improvement at the end of about five weeks' treatment; the patient, being very deficient in his knowledge of the English language was, at the same time, going to school.

It may be inferred by some that the treatment of speech defects should be left to the elocution teachers, but when we take into consideration their lack of knowledge of the anatomy, and the care and perseverance that are to be observed in the treatment of these cases, it will readily be seen that the condition is one for the attention of the physician.

Dementia Præcox.

E. Blenler, (The Journal of Mental Pathology,) says: When dementia is recognizable it is of a well-defined variety and is proper to and characteristic of this disease. It is not the dementia but the kind of dementia that characterizes the disease. There are other forms as congenital, senile, paralytic, and epileptic. Periodic and paranoiac patients who have lived many years in hospitals or prisons are liable to become subject to a slight psychic degeneration that they may be called dementia.

All cases of dementia præcox are characterized by a definite alteration of the emotions and in the association of ideas; this alteration is proper to this disease and is not met with in any other psychic affections.

The emotional life becomes stunted, the emotions are excited with much difficulty or not at all. The patients take very little interest in things of importance to them. Some emotions such as anger may persist. Memory may be unimpaired and the perceptive faculty fair.

Of sub-groups, one fades into the other; hebephrema, katonia, or paranoial forms may change one to the other.

Self-induced Cystitis from Colon Bacillus.

Leopold and Levi (Archives of Pædiatrics,) report a case of a boy of fourteen with acute cystitis produced by the use of a soiled rectal syringe for injecting his bladder with water for purposes of masterbation. Two days later he was seized with a severe chill, pain in the back and suprapubic region, ardor urinæ, vessical tenesmus, and bloody urine. A specimen of urine contained the bacillus coli communis almost in pure culture.

Two other cases of cystitis are cited from which cultures of the bacillus coli communis were also obtained. One, a woman of sixty-five, with symptoms of acute pyelitis, and exhibiting the bacillus in the pus laden urine. The other patient, a man of fifty-six, who for four years had had attacks of nepritic colic, suddenly developed pyuria and cystitis. The urine was of fæcal odor, and the colon bacillus was isolated. Death occurred from profuse sepsis.

They regard the last two cases as evidence of infection with the colon bacillus through the kidney tissue.

Signs of Masturbation in the Female.

E. H. Smith, in the Pacific Medical Journal, states that serious mistake is general as to the location of the parts which play the chief part in the orgasm. The clitoris in the female is usually put down as the part chiefly involved. Whether in the male or the female, the urethra is the part in which the orgasm occurs. In the male it is caused by the passing of jets of semen over the mucous membrane of the urethral canal. In

the female, by jets of mucus from the neck of the bladder through the urethra. After an orgasm in the female, however produced, the labia and vestibule are flooded with mucus, which escapes not from the vagina altogether, but largely from the urethra. The reason why males who have suffered amputation of the glans, and women who have been deprived of the glans of the clitoris can still accomplish the sexual act with orgasm, is because the urethra is the seat of the peculiar nerve distribution necessary for its production. This explains the habit of some individuals of passing all manner of objects into the urethra, and masturbating in that way.

As to the class of patients, those who present the most characteristic symptoms and who more often than otherwise fall into the doctor's care in a mental and physical condition ripe for a diagnosis, are, as a rule, from twenty five to thirty-five years of age. Ovarian pain is the most important symptom particularly at menstruation. It is a well-known fact that if a man suffers from prolonged sexual excitement it frequently produces pain in the testicles. This gives a clue to one cause of ovarian pain. Over-indulgence of any form of sexual act will cause more or less pain or tenderness in the ovaries. Severe pain at menstruation, in an otherwise healthy girl with no developmental defect, is a strongly suspicious sign of masturbation.

Disturbance of the intestinal functions, intestinal indigestion, distention with gas and wakefulness, is common in these patients. A peculiarly obstinate constipation is a most common accompaniment. During the manipulation of the genitals, the sphincter and levator ani muscles are contracted to the utmost. It is a part of the process whereby an orgasm is produced. The result is a tonic contraction of the sphincter ani muscle. Constant taking of laxatives or cathartics adds to the trouble by destroying the muscular tone of the rectum and colon. An examination of the rectum in these cases shows the mucous membrane relaxed and frequently in deep and multitudinous lax folds, filled with gliary mucous; the sphincter will scarcely admit the well-oiled finger. The damage to the nervous system varies with the nervous type of the individual and the extent of the vicious practice.

The Treatment of Mastitis.

Adeline E. Gurd (Detroit Medical Journal). makes the following suggestions: Give a saline cathartic to relieve the engorgement, aconite for the fever and opium for the pain. Locally systematic massage of the breast, working in the line of the milk-ducts and reducing friction with an emollient. Ten minutes of this usually gives decided relief; but if it fails or causes pain and soreness it should be discontinued. After the massage apply a firm binder, and ouside of this, continuously, either ice or dry heat, whichever is best borne by the patient, leaving the breast otherwise undisturbed for one or two hours. Then repeat this process, in addition drawing a certain amount of milk, if necessary. In many cases, however, the massage, properly applied, will draw off sufficient milk to render other means superfluous.

If the patient improves, even slightly, under this treatmsnt, continue it day and night, gradually lengthening the periods of absention from massage until the congestion has entirely disappeared. If, on the other hand, the pain becomes more severe, and is heightened by movements of the arm on the affected side, if the part is more tender, and the temperature remains elevated, with recurrent chills, a lessened flow of milk and edema of the skin, search for pus. The superficial abscess is easily opened. The deep is best reached by Dawborn's method, which consists in making a half-incision through the skin and superficial structures, then searching carefully with a grooved director until the pus focus is found. The incision is stretched with dressing forceps until it will admit the finger, which is used to explore the gland, break down pus pockets, and, if necessary, to make secondary openings. Press out the pus, wash out with an antiseptic solution and pack with sterile gauze.

Dysentery.

Goltman (Memphis Medical Journal,) treats dysentery by local means and divulsion of the rectum. His conclusions are: (1) The treatment of dysentery, acute or chronic, by topical application is most rational. (2) Topical applications are useless unless large volumes of fluid are used to distend the bowel, (3) Topical applications, as usually made, are very painful in all cases, particularly in those that are acute. (4) Topical applications, to be thorough and far reaching, are unbearable to the patient, on account of the extreme pain they cause. (5) Anal division is a prime factor in facilitating the work of flushing the colon. Resistance to the escape of fluid is removed, and it markedly relieves the tenesmus. (6) Anal divulsion, cauterization of ulcers through the proctoscope, passing a tube high up into the sigmoid through this instrument, and thorough distension and flushing of the gut, are absolutely impossible without the aid of anesthesia. (7) Anesthesia rather relieved than produced shock in Goltman's cases. These patients seem to take as kindly to chloroform as wo-

men in childbirth. (8) In his judgment, one is more likely to overdistend and perforate the gut without anesthesia than with it.

Metabolism in Albuminuria.

Emerson (The Johns Hopkins Hospital Reports) has made a study of the disturbances of metabolism in a series of ten cases of nephritis. The albumin and nitrogen excretion in the urine were noted. The former was estimated gravimetrically, and the latter by the Kjeldahl method. He concludes his remarks as follows:

1. The percentage of albumin is the best index for the course of a case of albuminuria.

2. In many cases of chronic nephritis there is an acute process of progress, and it is this latter which governs the course of the disease. Variations in the course of this acute process are shown by (a) increase in albumin per cent., (b) slight rise in temperature.

3. The effect of various diets, therapeutic measures, muscular work, etc., on the albuminuria is often produced by their effect on the acute process.

4. In governing the diet in nephritis, slight rises in temperature should be taken as evidence that the diet is unsuited to the case.

5. While the acute process is active, milk is the best diet; not too much, and properly dilluted. After the acute process has subsided, the patient may even benefit from additions of bread and butter, rice, fruit, or even, later, of meat.

6. If the day and night urines be studied separately, it was found that (a) the line of water excretion for the day is practically parrellel to that of the night; but the changes in the night preceding gives the curves the appearance of being the reverse to each other; (b) the albumin per cent. of day urine is practically always above that of the night; (c) in the night urine the albumin and nitrogen lines are practically parallel, showing some definite relation between the excretion of these, and the percentage of each varies inversely as the amount of urine to a certain degree.

Blood Pressure in Mental Diseases.

Alexander (The London Medical Lancet) states that the blood pressure is considerably increased in acute passive melancholia, less so in acute demonstrative melancholia, and generally low in chronic melancholia increasing when the mental symptoms become acute. In mania the pressure is above normal, though not so marked as in melancholia. General paralysis presents many types of insanity, and consequently the results of examination varied greatly. In the latter demented stages the pressure readings were uniformly low. In pure senile mania and melancholia the readings obtained corresponded to those registered in the same affections occurring in an adult or an adolescent, but the blood pressure was, as a rule, much above normal in that variety of senile insanity which is associated with dementia and which is characterized clinically by a constant fidgety motor restlessness; and it is in this form of insanity that drugs of the nitrite class are of benefit. The blood pressure in mania appears to be considerably modified by the presence of general physical debility, and the restlessness in the chronic maniac of poor physique is, as a rule, associated with a normal or even low blood pressure, though an elevation may occur with any increase in excitement.

Without the presence of any organic disease to account for it, some cases of senile dementia, with constant restlessness as a marked symptom, have a high blood pressure.

As is well known, an attack of mania is usualy ushered in by certain premonitory symptoms, and one of the commonest of these is mental depression. On the appearance of any of these premonitory symptoms it is often possible to ward off the acute attack by confining the patient to bed amidst quiet surroundings and by keeping him on a low diet—precisely as a case of melancholia may be treated. He has always found the symptoms, mental and physical, antecedent to an attack of mania to be accompanied by a rise in blood pressure.

The Gelatine Treatment of Aneurysm.

E. L. Claxton, in The London Practitioner, says that the treatment of aneurysms by means of injections of gelatine was introduced practically by Lancereaux and Paulesco in the year 1897. The results claimed for the early cases of the method were very remarkable, and the total number thus treated must be altogether very large. Many fatalities have, however, occurred, the most notable of them being due to the appearance of tetanus as a sequel. This is attributed to the presence of the spores of this organism in commercial gelatine and the difficulty of rendering solutions of this substance absolutely sterile. That such difficulty should be experienced seems curious in view of the common, not to say invaluable, use of geletine in the manufacture of nutrient media for the growth of bacteria in the laboratory. It is not, so far as we know, found that tetanus bacilli develop with any frequency as contaminations of such cultures. That these spores may be difficult to kill by a single application of heat is easily admissible, but that they can-

not be effectually removed by such a method as that discontinuous sterilizatlon is at least remarkable. Another objection to this mode of treatment of aneurysm is its extreme painfulness in many cases, so that patients practically refuse to go on with it after a few trials. In addition to these serious drawbacks, there appears to be considerable uncertainty whether any real increase does take place in the coagulability of the blood as a result of injections of gelatine. In the cases mentioned it is not admitted that any real improvement took place in aneurysms from which the patients suffered; and he concludes that the method should be discarded, since it is undeniably dangerous and of very doubtful efficacy.

Bacteriology of Empyema.

Bythell, in Pediatrics, says: Forty successive cases of empyema in children were examined bacteriologically, with the following results: Streptococcus alone, two cases [5%]; streptococcus and staphylococcus, one; streptococcus and pneumococcus, one; pneumococcus alone, twenty-six [64%]; other mixed pneumococcus cases, none [22.5%], and Friendlander's bacillus and staphyloccus, one. The writer's conclusions are as follows:

1. Empyema is common in children of all ages, and is decidedly more frequent in boys than girls. The disease resembles pneumonia, in being more prevalent in spring and early summer.

2. The pleura is infected in the great majority of cases by a process of direct invasion from a pulmonary lesion. The latter is usually a catarrhal pneumonia in children. In many cases which are apparently "primary" the source of infection is probably also an undiscovered patch of bronchopneumonia.

3. The micro-organism, which is by far the most frequently present in the empyema of children. is the pneumococcus.

4. The clinical results of empyema depend to some extent upon the species of bacteria found within the pleura, the pneumococcic cases being, on the whole, the mildest. This mico-organism may, however, give rise to very serious complications either by the direct invasion of surrounding viscera or by metastic infection.

5. The bacteriological examination of the pus gives other indications as to the clinical prognosis, which appear to be of considerable value—(a) a small number of poorly-stained micro-organisms which give feeble cultures usually denote a good prognosis; (b) the reverse condition is not so frequently accompanied by severe clinical symptoms, epecially when phagocytosis is well marked; (c) vigorous cultures are not in themselves a reliable sign of pathogenic activity.

6. The bronchial nodes are probably invaded by micro-organisms from the pleural cavity in every case of empyema. The organisms are sometimes also found after death in the mesenteric nodes.

7. With the exception of those cases in which there are tuberculous lesions of the pleura or lung the best results may be expected from the resection of a rib, with free drainage of the pleural cavity.

Some Notes on the Opium-Habit and Its Treatment.

Jelliffe, in The American Journal of the Medical sciences, writes as follows:

"It would be futile to attempt, at the present time, to compute the number of people who use this drug; but there can be no doubt that its habitual use is very extensive, and its occasional indulgence is enormous."

Opium-takers comprise all those who take the drug in different forms, as laudanum, paregoric, the extracts, etc., by the mouth, vagina or rectum; a second and very large class absorb the drug by smoking; a third class who use the drug hypodermically. Roughly estimated in New York City, its habitual use is confined to perhaps 30,000 individuals. That the drug is used to an almost unknown amount is certain, but any effort leading to the positive determination of the number of habitues must necessarily be futile. As to the treatment, it must be remembered that the habit, once acquired, is far stronger than alcoholism; hence the portrayal of the hell of a confirmed habitue cannot be too strongly painted, if, by doing so, we can have it all as a prophylactic. It must also be remembered that the habit is "paroxysmal" with some, and that others discontinue its use by change of scene and surroundings, or by an intense effort of the will.

The cardinal principles on which a rational therapy are to be founded are: (1) A substitution of different ideas by suggestion, and (b) the substitution of different sensations by other drugs.

Many other drugs have been employed to carry out this idea of substitution, but have not been of service outside of institutions or "close watching."

The details of the Macleod method are, 120 grains sodium-bromide are given in a half-tumbler of water every two hours during daytime, until one ounce has been taken in one day. It is safe to stop the administration after twenty-four hours if the patient is quite drowsy. After second day of sleep, the bromide is withdrawn. Rectal feeding is instituted.

Heroin is the next drug selected, and is used "for the blissful feeling of tranquility, accompanied by a sharpening of the intellectual faculties." All anxieties are forgotten in the pleasure of simply living. Under the use of heroin, practically all the sensations of morphia are reproduced, but there are certain points of difference. The sense of "euphoria" is not an exhilaration of the central functions, neither is it forgetfullness of external impressions, nor the joy of living in a world apart; it is simply a cessation of the craving.

In its use there is a marked relief from pain and a delicious sense of pleasurable warmth and comfort which steals over the body. The sense of weakness disappears.

The Treatment of Intestinal Paresis by Alum Enemas or Hydrobromate of Hyoscine.

Wells, in The American Journal of Obstetrics, writes: "In cases where the patients are becoming dangerously tympanitic, a high enema of an ounce of alum in a quart of hot water produces a marvelous contraction of the intestines, and apparently does no harm to the gut. It may be repeated several times, at intervals of an hour or two. If anything will make the intestinal muscle contract, this will."

Grandin says that he has been unfortunate enough to have seen a number of such cases, and he has tried alum in the way referred to by Dr. Wells. He tried this method in two cases, and they both died, as all others did under any treatment.

This last summer, after a very desperate hysterectomy for fibroid and pus-tubes, the patient was left in the hands of her family physician. Symptoms of intestinal paresis supervening, after testing the usual measures, without avail, this physician concluded that, since the condition was due to spasm, he would relax that spasm, and he gave the hydrobromate of hyoscine until the pupils became as big as saucers. This patient recovered. This is one case in which the trouble yielded to drugs. It is in the line of reports that come to us from Europe about the use of large doses of atropine in these cases used to its physiological extent.

The Technique of the Utero-Vaginal Tamponade.

De Lee, in The American Journal of Obstetrics, says:

It is best to pack the whole utero-vaginal tract and to use one piece of gauze. This facilitates removal. He prepares the gauze as follows: Ordinary so-called sterile gauze sold by surgical supply-houses, is used, is cut into strips thirteen yards long and one-half yard wide; it is folded, and the salvage and the raw end turned in, then thoroughly washed in running-water, after which it is boiled twenty minutes in 0.5 per cent. lysol solution. It is then allowed to soak several hours in this solution, when it is wrung out dry through a scalded clothes-wringer. Using rubber-gloves, each strip is packed into a sterile jar, filling it evenly and smoothly from the bottom to the top, on which a layer of cotton is placed and the jar is closed. The jar is put in the steam-sterilizer and boiled every day for three days, two hours each time. After the last boiling, while still warm, the head of the jar is dipped into melted paraffine to seal it. Thus prepared, the gauze will keep for years and is absolutely safe. When time to use it, the wrapper is removed, the cap taken off, the jar covered with a sterile towel and the gauze introduced directly from the jar, which is held near the vulva. The half-hand is placed in the vagina with the finger-tips in the cervix, and, by means of long-curved packing-forceps, the end of the gauze is carried to the top of the uterine cavity; then the whole cavity is packed, making sure to fill the sides. When the uterus is half-full, the gauze is stuffed in by the fingers, using the other hand on the fundus, through the abdomen, as counter pressure. For aseptic reasons the belly is coveted with a sterile towel. The packing is then continued. After the uterus is full, the vagina is tamponed tightly also. In some few cases more than thirteen yards could be packed in, while others need only five or six yards. This depends on the uterine contraction and the size of the parts. That the strictest surgical asepsis should be practiced is absolutely necessary for success.

Most patients bear up well under hæmorrhage to a certain point, passing which, the condition becomes one of acute jeopardy. In a small, anæmic woman a small loss of blood is serious. One thirteenth of the body-weight being blood, a woman weighing one hundred pounds has only eight pints. A patient may recover after losing one-third the total quantity, dies if one-half is lost.

Distribution of the Klebs-Loeffler and Hoffman Bacilli.

G. S. Graham Smith in the Journal of Hygiene discusses the question of the distribution of the Klebs-Lœffler and Hoffman bacilli in the throats of those who have been in contact with diphtheritics and in those of normal persons. He says that the Klebs-Lœffler bacillus has been found in a considerable proportion of persons who have been in contact with cases of diphtheria or with infected persons. Such persons have been shown to be a grave danger to public health, especially when they are frequenting schools

or institutions, and they constitute the usual channel by which the disease is spread. Very satisfactory results have followed the isolation of convalescents from the disease and of infected "contacts," until two consecutive negative cultures have been obtained. Carefully conducted investigations among healthy persons who have not been in contact with cases of diphtheria or with infected "contacts," have shown that virulent diphtheria bacilli are very rarely found in the mouths of the normal population, they being actually found only three times in 1,511 examinations. This fact renders the discovery and isolation of infected persons a practical possibility, and offers a fair prospect of discovering and isolating the majority of them in any outbreak. Diphtheria bacilli are usually distinguishable on morphological and cultural grounds, but whenever possible, it is desirable that their virulence be tested. The bacillus of Hoffman is inoccuous to man. It is a very common organism in the mouths of the poorer classes. The distribution of this bacillus points to the conclusion that it is carried from mouth to mouth in the same way as the diphtheria bacillus, and therefore its wide prevalence in schools attended by poorer children is significant as showing how wide-spread and uncontrollable an outbreak of diphtheria may become, unless measures are taken early to deal with infected "contacts."

Surgical Treatment of Cirrhosis of the Liver.

Robert B. Greenough, (American Journal of the Medical Sciences) states that the operation for the treatment of cirrhosis of the liver has now gone beyond the experimental stage, and that an estimate of its value should be possible from the reported cases.

Talma's operation, the suture of the omentum, for the relief of ascites, depends upon the theory that acites in liver cirrhosis is of mechanical origin. This theory is generally accepted, but some observers hold that the ascite is due to the toxemia produced by the destruction of the liver cells. Thompson and White advance the the theory that the ascites may be due to purely accidental coexisting causes, such as peritonitis or perihepatitis. The large number of lymphatic openings on the under surface of the diaphragm would be obliterated by a chronic peritonitis localized in this region, thereby diminishing the normal facilities for the absorption of peritoneal lymph.

In 1891 Terrier performed an entirely different operation for the relief of biliary or Hanot's cirrhosis. This operation, which is generally known as Delagniere's, consists of the drainage of the bile ducts, which is obtained by cholecystomy and maintenance of a biliary fistula. This operation is based upon the theory that hypertrophic or biliary cirrhosis is due to an infection of the bile passages proceeding from the intestines. Seventeen cases of this operation have been collected from the literature, thirteen of which were relieved.

The writer has collected from the literature 122 cases of Talma's operation for ascites. In seventeen cases the ascites was due to other causes, and these are excluded from the list. That leaves 105 cases of uncomplicated cases of cirrhosis for analysis.

An Inquiry Into the Value of the Irrigation Method as a Means of Aborting and Treating Acute Specific Urethritis.

Horwitz, in the Therapeutic Gazette, says: "Any one with a mind unbiased who will analyze the testimony offered for and against the irrigation treatment of acute specific urethritis will, it is believed, feel justified in subscribing to the conclusions which follow:

"1. The irrigation method of treatment will not abort acute specific urethritis.

"2. It will hasten the terminal stage of the disease which is prolonged and difficult to cure.

"3. Chronic urethritis and involvement of the deep sexual organs are common sequences.

"4. In many instances, in order to effect a cure in the terminal stage of the disease, the irrigations must be discontinued, and other methods of treatment employed.

"5. Irrigation should not be employed in the acute stage of specific urethritis.

"6. Irrigation of the deep urethra by hydrostatic pressure is injurious in the majority of cases of acute gonorrhœa, and is conducive to the development of complications.

"7. Little or no progress has been made in the treatment of acute urethritis, either in aborting the disease, lessening its duration or preventing complication."

Aluminum Chlorid.

G. Campbell (St. Louis Medical Review) mentions the value of chlorid of aluminum in the pains of tabes dorsalis. At first he used three-drop doses of a 3% solution cautiously increased, with most satisfactory result. In overdoses the salt was a gastric irritant, but the pains were usually controled before the dose reached one-half grain. One and one-half grains daily were given for long periods with no distress or disturbance of the general health. On the contrary the immunity from the pains enabled the patient to improve in general health and so reacted favorably on the other

symptoms of the locomotor ataxia. In the gastric crises of tabes he has not met with success, though such are not aggravated by the drug. The author does not try to explain the method of action but believes such results, attained without the use of narcotics or heart-depressing analgesics and with a certainty that almost amounts to specificity, are well worthy of a trial. Gowers, some years ago, called attention to the use of this remedy in tabes and in his clinical lectures on "Diseases of the Nervous System. It seems to have a combined tonic and sedative influence on the structures affected. The author refers to a physician who had taken the drug with great benefit, but who, after trying other agents with no improvement, with the resumption of the chlorid of aluminum, found relief.

The Existence of Organic Disease in the Absence of Obvious Symptoms.

Bradford, in The London Lancet, calls attention to the fact that many serious conditions are overlooked, because of hasty examination and the absence of some leading or guiding symptom. Perhaps the greatest lesson to be learned from the paper is that most of these conditions can be detected, or at least suspected, by a complete physical examination. In the large proportion of that class of cases the malady is a fatal one and very frequently immediately so. In some cases the occurrence of acute symptoms may be only an exacerbation of the chronic ailment. The sudden occurrence of acute uræmia furnishes a good illustration of this. Again, the presence of acute symptoms may suggest a complication, as gangrene or coma may first call attention to diabetes.

Latent diseases may be divided into two classes: (a) Where the latent disease occurs as a complication of other or obvious maladies, and the complication either produces no obvious symptoms or its symptoms are thought to be due to the original disease. (b) Where the latent disease is not detected until complications have developed.

As examples of class "a": Renal sequelæ, occurring in diseases of the bladder and other pelvic organs; latent pleural effusion in cases of valvular heart disease; latent cerebral abscess as a complication of middle-ear disease; pericarditis as a complication of renal disease. As examples of class "b" we could give many of our diagnostic errors. Typhoid fever has a marked tendency to run a latent course, and perforating peritonitis is often due to preceding typhoid. Rheumatic heart-lesions are found where there is no joint involvement in rheumatism. Diphtheritic paralysis may occur without a definite history of that illness. Gastric ulcer, gastric cancer, hepatic diseases, cerebral effusions, etc., are examples of lesions where, at times, there are no obvious symptoms.

Primary Tuberculosis of the Breast.

W. S. Schley in The Annals of Surgery, reports a case of this disease.

The patient was a woman of thirty-two years. Family history was negative and she had nursed five children without any mammary trouble. Eight weeks before admission to hospital pain was felt in the right breast, followed three weeks later by a small lump in the upper and outer quadrant. Two weeks before admission it began to grow rapidly and became very painful. Chest examination was negative. The lump was not tender, skin was not adherent. The breast was amputated and the axilla cleared out. The breast was filled with a soft mass, from which radiated connective tissue strands. The growth closely resembled a scirrhous carcinoma. Under the microscope a moderrte amount of adematous tissue was visible. There was also abundant infiltration of the connective tissue with small round cells, and in places distinct tubercles with giant cells and central necrosis. The whole of the tumor was diffusely infiltrated with these evidences of tuberculosis, but there were no large cheesy masses and no other evidences of tuberculosis than those given above. The tubercle bacilli were demonstrated in stained sections of the tumor. The axillary lymph nodes were perfectly normal. Two weeks after the operation the patient was given an injection of seven milligrams of tuberculin, but showed no reaction. As a control to this test, three other known cases of surgical tuberculosis were given each six miligrams from the same dilution and gave typical reaction.

Successful Treatment of Erysipelas with Carbolic Acid.

Frazier, in the American Journal of Surgery and Gynecology, reports a case of traumatic erysipelas of the arm in a child five years of age. A ring of pure carbolic acid was run around the arm above the affected area, blanching the skin white, after which alcohol was applied. A similar ring was run around the wrist, but incomplete at the back because the acid run out. The inflammation extended through the gap, but not elsewhere, but its further progress was arrested by means of another complete ring of carbolic acid placed lower down. The ulcer, due to a burn, from which the trouble started, was dressed with 2 per cent. carbolic wet gauze. Recovery was prompt and uneventful.

Miscellaneous.

PROGRAMME MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Fifty-First Annual Meeting, Raleigh, N. C., May 24, 25 and 26, 1904.

General Session held in Capitol building, Senate chamber. House of Delegates also sits in Capitol building.

Address of welcome, His Excellency, Gov. Chas. B. Aycock.

Address of welcome by the city, Hon. Ed. Chambers Smith.

Response, Dr. James M. Parrott, Kinston.

President's Annual Address, Dr. H. B. Weaver, Asheville.

Report of Secretary, Dr. J. Howell Way, Waynesville.

Annual Oration, "Aesculapian Dreams," Dr. C. A. Julian, Thomasville.

Annual Essay, "An Ounce of Prevention," Dr. J. G. Blount, Washington.

Annual Debate, "Diphtheria," Leader, Dr. J. A. Williams, Reidsville.

"Infection," Dr. I. W. Faison, Charlotte.

"Immunity," Dr. Albert Anderson, Wilson.

"Uric Acid and Metabolism," Dr. Ben. K. Hays, Oxford.

"Pneumonia," Dr. John C. Montgomery, Charlotte.

"The Relation of the General Practitioner to the Prevention and Cure of Tuberculosis," Dr. Paul Paquin, Asheville.

"Malaria as Complicating Typhoid Fever," Dr. A. S. Pendleton, Henderson.

"The Bedside Diagnosis of Typhoid Fever," Dr. Chas. Z. Candler, Dillsboro.

"Modern School Methods as a Factor in the Production of Nervous and Mental Disease," Dr. I. M. Taylor, Morganton.

"Acute Entero-Colitis," Dr. Guy S. Kirby, Marion.

"Asthma; Its Etiology and Treatment," Dr. James Sawyer, Asheville.

"Medical Dietetics in General Practice," Dr. Geo. P. Edwards, Sylva.

"A Plea for a More Just Judgment of Drug Users," Dr. Geo. S. Petty, Memphis, Tenn.

"A Modern Method of Treating Whiskey and Other Drug Addictions," Dr. S. M. Crowell, Charlotte.

"Uncinariasis in North Carolina; Its Distribution, Frequency, Etiology, and Pathology," Dr. W. S. Rankin, Wake Forest.

"Uncinariasis in the Mountains of North Carolina," Dr. W. P. Ivey, Lenoir.

"Uncinariasis in Eastern North Carolina," Dr. J. L. Nicholson, Richlands.

"The Care of the Tuberculous and the Importance of Intelligent Legislation and Education as Factors in the Prevention and Cure of Tuberculosis." Dr. Thos. P. Cheseborough, Asheville.

"The Business Side of the Profession," Dr. E. T. Dickenson, Wilson.

"Quinine," Dr. J. M. Parrott, Kinston.

"Some Uses and Abuses of Glasses," Dr. R. V. Brawley, Salisbury.

"Specific Keratitis and Trachoma," Dr. J. H. Honnett, Wilmington.

"The Pupil Reflex as an Aid to Diagnosis," Dr. H. H. Briggs, Asheville.

"Adenoids in Children; A Plea for Early Recognition and Treatment," Dr. R. J. Teague, Roxboro.

"The Treatment of Joints Injured by Chronic Rheumatism," Michael Hoke, Atlanta, Ga.

"Legislation and the Doctor," Dr. Seavy Highsmith, Hope Mills.

"Gas and Ether Anaesthesia," Dr. Southgate Leigh, Norfolk, Va.

"The Morphological and Psycho-Physical Intrinsicalities of the Negro Race." Dr. N. B. Herring, Wilson.

"Nephritis," Dr. R. E. Mason, Charlotte.

"The Use of the Cystoscope," Dr. A. J. Crowell, Charlotte.

"Gun shot Wounds of the Abdomen with Report of Cases," Dr. J. W. Long, Greensboro.

"Some Recent Work on the Kidney," Dr. St. Clair Spruill, Baltimore, Md.

"Treatment of Some Common Fractures in Private Practice," Dr. F. H. Russell, Wilmington.

"Surgical Treatment of Retro-Displacements of the Prolapsed Uterus," Dr. C. M. Strong, Charlotte.

"Menstrual Disorders," Dr. J. J. Young, Clayton.

"The Treatment of Ununited Fractures," Dr. Stuart McGuire, Richmond, Va.

"Lacerated Cervix, Results and Treatment," Dr. P. J. Macon, Warrenton.

"Immediate Repair of Lacerated Perineæum," Dr. P. A Nicholson, Washington.

"When to Amputate," Dr. H. A. Royster, Raleigh.

"A Plea for Early Explorative Incision for Diagnostic and Curative Ends in Masked Conditions of the Upper Portions of the Abdomen," Dr. Hugh M. Taylor, Richmond, Va.

"A Protest Against Indiscriminate Sur-

gical Operations upon the Female Organs of Generation," Dr. A. K. Tayloe, Tarboro.

"Railway Spine (Traumatic Neurasthenia), What Is It? and How Recognized, Dr. J. E. Rogers, Raleigh.

"Abdominal Surgery with Special Reference to the Preparation and After-treatment," Dr. W. P. Whittington, Asheville.

"Papillomata and Their Degenerations," Dr. Wm. deB. MacNider, Raleigh.

"Choleithiasis, with Special Reference to Surgical Treatment," by Dr. Alfred C. Wood, Philadelphia, Pa.

"Address on Thorium and Its Uses," Prof. J. M. Baskerville, Chapel Hill.

Paper by Dr. C. L. Minor, Asheville.

Paper by Dr. W. K. Lane, Goldsboro.

Exhibition of Specimens under section on Gynaecology by Dr. H. A. Royster, Raleigh.

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Chairmen of Sections and others having additional papers will confer a favor by promptly sending titles to the Secretary in order that the programme may be arranged and printed prior to the meeting.

The presence of every member of a County Medical Society in North Carolina who can attend is desired.

A full meeting of the House of Delegates is expected. Blanks for delegates' certificates have been sent the secretaries of the County Societies.

There will be a reception at the Capital Club on the evening of May 25th in honor or the visiting physicians.

Headquarters will be at the new Yarboro Hotel, and Mr. Cobb assures the local committee there will be ample room and 600 are expected.

Railroad rates on certificate plan. Every Doctor should be sure to secure a receipt for full fare paid to ticket agent going to Raleigh, and can secure a return ticket for 1-3 (one-third) fare. Emphasize importance of securing the receipt.

J. Howell Way, M. D.,
Secretary.

Soluble Mercurials in the Treatment of Syphilis.

It has been found in practice, that the formula for the so-called "specific" bin-iodized oil, adopted by Prof. Panas, Dieulafoy, Lancereaux, Brissaud, Fournier, and other leading French specialists for diseases of the skin, was far too weak for the mercurial treatment of syphilis. Nevertheless, there has been a growing demand for this oil, because it is not irritating to the stomach, and used hypodermically, is preferable to the insoluble mercurials (calomel, tannate of mercury, etc.)

The assimilation and subsequent elimination of these injections of insoluble salts of mercury is always unsatisfactory, and they frequently produce abscesses, and always cause considerable shock to the patient.

Since Ricord's time, the proto-iodide has been the favorite internal treatment. It is preferable to bichloride of mercury, because the latter attacks the living tissue, chemically uniting with it to form an albuminate of mercury, before being slowly reduced to an oxide, and finally into small globules of metallic mercury.

This reduction to metallic mercury occurs with all salts of mercury when introduced into the system in whatever form, but the *proto* salts are reduced to larger globules than the *per* or mercuric salts. The writer is of the opinion that it is not important which salt of mercury is exhibited as far as the effects on the disease is concerned, preference however should be given to a preparation which does not attack violently the living tissues. Hence this soluble non-irritating oily solution of mercuric iodide is possessed of advantages which cannot be denied, for in the intestinal emulsification of the oil, the infinitesimal subdivided mercuric iodide comes in contact with the food contents of the alimentary canal, and any caustic action is exercised on these rather than on mucous membranes.

In pill form, proto-iodide and calomel, as well as the red iodide of mercury, often cause considerable irritation in the alimentary canal, and even while these disadvantages may be overcome to a certain extent by the addition of small doses of opium, it is well known that opium locks up secretions, which condition is certainly undesirable in the case of syphilitics.

Dr. Chapelle, of the Paris Municipal Laboratory, finds that while the bin-iodide of mercury is only soluble in very minute quantities in oils, such as almond, olive, etc., that if the mercuric iodide is formed in the oil itself, it dissolves in its nascent condition and remains in solution. A one per cent. solution of nascent mercuric iodide is a convenient and permanent strength. While of course this mercuric iodide in oil acts like all other mercurials as an anti-syphilitic, it never salivates or produces the slightest irritation in the alimentary canal.

This oil may be given either in the form of capsules of minims each, (which is equivalent to one thirty-second of a grain) or injected hypodermically. Clinical experience shows that its effects are the same as mercury by inunctions, or of any of the mercurial salts when administered by the stomach or hypodermically, and its use can be continued indefinitely, without requiring intervals of repose. Blood tests thoroughly prove that patients do not become anemic when this bin-iodized oil is long continued, even in heroic doses, and while the capsules gradually bring the patient under the influence of mercury, the hypodermic injections are very prompt in their effects on gummas and other tertiary symptoms.

This one per cent. solution of mercuric iodide in oil, is now usually prescribed under the name of cypridol, which does not betray the fact to the laity, that mercury is being administered. All the advantages which are unavoidable with the soluble and insoluble mercurial preparations are avoided with cypridol dispensed in capsules. These do not affect the digestive organs or salivate even in massive doses. The injections of cypridol are quite painless. Eight minims is considered a normal injection, and this dose can be repeated every day if desired.

Technique.—The needle should be introduced deeply into the gluteal muscles, and a short interval allowed to elapse before the cypridol is injected, in order to see if any blood exudes. If there is blood, no injection should be made at this point, as there is danger of pulmonary embolism.

In my somewhat extensive clinical experience with cypridol, I find but one objection. It is, that the symptoms often subside too quickly, and with syphilitic patients it is difficult to persuade them to continue the treatment unless accidents occur. —*Geo. W. Tobias, M. D., New York.*

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Eunatrol

Oleate of sodium. Stimulates activity of liver cells, promotes flow of bile and ready expulsion of biliary concretions. A cholagogue indicated in cholelithiasis, prompt and energetic in its action. Recommended by Gerhardt, Hoppe-Seyler and others. May be given continuously without harm. Dose: 4 grains.

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Antitussin.

Difluordiphenyl ointment 5 per cent, especially serviceable in whooping cough, since it relieves both the severity and the frequency of the paroxysm. Dose: 5 grams externally. Sample to physicians on receipt of 25 cents for 20 grams; 50 cents for 40 grams.

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Fluorphenetol ointment 5 per cent. (lanolin, vaseline base), most prompt and powerful in relieving pain, whether of neuralgic or of rheumatic origin. Dose: 5 grams externally. Sample to physicians on receipt of 25 cents for 20 grains; 50 cents for 40 grains.

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Watery solution of the gas $CHFI_3$ (2.8 per cent). Tasteless, not toxic nor irritant. Its chief value is shown in the treatment of pulmonary tuberculosis, in which before the formation of cavities it causes cicatrization of the part involved, and consequent recovery. In local tubercular lesions of the joints, glands or skin (lupus) it gives remarkably favorable results. In acute pneumonia, if not only relieves the patient's distress but also reduces the temperature and cuts short the attack. Dose: one tablespoonful four times daily. Sample bottle (1 lb.) to physicians on receipt of one dollar.

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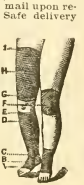

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Some Points in Medical Gynecology.

Fuller, in the Annals of Gynecology and Pediatry, makes the following suggestions:

Occipital headaches may be due to a weak heart, causing nervous congestion of the base of the brain; by constipation and loaded colon, or intestinal dyspepsia, which in turn may be due to trouble of the degenerative organs; and from passive pelvic congestions due to impeded return circulation caused by deficient support of the pelvic viscera.

Headache along the coronal suture is of two kinds, one by abnormal condition of the stomach, the other of the pelvic organs, the former being usually credited with being the more frequent cause.

Temporal headache is usually caused by eye affection, particularly eye strain, though capable of being the reflex effect of trouble anywhere on the same side of the body.

Frontal headache is usually of gastric origin or eye strain.

These there are general headaches due to general causes, such as rheumatism, gout, neuralgia and syphilis. The first usually appears on the falling of the barometer, the second is accompanied by great quantities of uric acid, the third is characterized by hyperesthesia, while the last is either entirely nocturnal or is at its worst at night.

Backache may be dorsal, lumbar, or sacral. The first is usually dependent on the stomach and liver, the second upon the bowels and kidneys, and the third almost always to intrapelvic trouble, either of the uterus, tubes, or ovaries, though sometimes also the rectum.

Calcium Chlorid as a Hemostatic

Bartignon, in the Medical Press suggests the administration of chlorid of calcium as a hemostatic in hemorrhages of all kinds, in diseases presenting hemorrhagic complications, and especially in hemophelia. It has been found to succeed in cases where failure was recorded with perchlorid of iron, antipyrin, ergotin, and the like, while possessing the additional merit of being better tolerated by the stomach than any other coagulating agent. The remedy has been tested in hematemesis, hematuria, enterorrhagia and acute general purpura with excellent results.

The formula advised consists of chlorid of calcium, crystallized, 1 dram, syrup of opium 3 ounces, water 4 ounces. To be taken every twenty-four hours and renewed so long as the hemorrhage may continue.

The Hemiplegic State.

Arthur Sweeney (St. Paul Medical Journal) don't believe the proper attention is paid to the muscular system, particularly to those sets of muscles which produce contractures, and to the manner in which these deformities are produced in hemiplegics. By persistently opposing conditions which favor abduction and flexion, a large degree of comfort and a considerable degree of function can be assured, which would otherwise be lacking. Active measures should be early instituted, especially in case of the arm.

Diphtheria Diagnosis and Treatment.

Beever in the Med. Times and Hospital Gazette states that diagnosis is not always easy, as every tenth case sent into hospital proved not to be diphtheria. Early diagnosis was very important, as cases treated in the first and second days yielded a death rate of 6%, on the third day 12%, and on the fourth day 19%. In all suspicious cases take a culture: but do not wait for this, giving antitoxin at once from 2,000 to 7,000 units. The more marked the local lesions, or the more advanced the disease, the larger should be the dose.

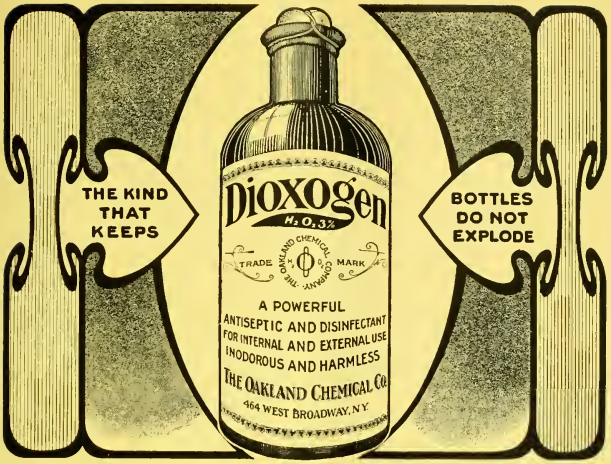
Diphtheria Diagnosis and Treatment.

H. Beevor, in the Medical Times and Hospital Gazette remarks that diagnosis is not always easy, as every tenth case sent into hospital proved not to be diphtheria. Early diagnosis was very important, as cases treated in the first and second days yielded a death rate of 6 per cent. In all suspicious cases take a culture; but do not wait for this, giving antitoxin at once, from 2,000 to 7,000 units. The more marked the local lesions, or the more advanced the disease, the larger should be the dose.

In Spite of Teachers and Text-Books.

The days of the cotton jacket and the linseed poultice seem to be past. Perhaps the applications valued most highly by medical teachers at this time are the cold ones either in the form of ice-bags or cold compresses frequently changed. These when placed over the seat of disease, seem to give decided relief, to modify the temperature, and to hasten early resolution. But in spite of their advocacy in the text-books, the rank and file of the profession do not take to them kindly.

Antiphlogistine now enjoys perhaps greater popularity in the treatment of pneumonia and other acute respiratory diseases than any other local application. This popularity seems to be well-deserved. It may not modify the course of the disease to any great extent, but it certainly proves of the greatest comfort to the patient, and helps to ameliorate some of the troublesome symptoms which are characteristic of the disease. Antiphlogistine must therefore be considered a distinct addition to our therapeutic armamentarium.—*The Med. Standard, March, 1904.*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An Unjust and Unworthy Attack by the Editor of the Journal American Medical Association.

Upon the suggestion and by the authority of Governor Francis and Mr. Rogers, the President and Manager of the World's Fair Exposition at St. Louis, the American Congress on Tuberculosis (organized by the Medico-Legal Society in 1900), has organized an International Congress on Tuberculosis to meet at St. Louis in October next, the committee on organization having been named by President Francis. This committee embraces some of the most distinguished physicians and sanitarians in America. The work of organization is still in progress and is nearly completed. The movement has the sanction and earnest support and co operation of the general government, and the Department of State has invited, through our ambassadors and consuls, representation from all foreign countries. Many have responded, naming as delegates their most distinguished medical men. The French Congress on Tuberculosis, of which Professor Brouardel is President, has deferred its meeting to 1905 in order to avoid conflict with the St. Louis meeting, and that its members may unite with us at St. Louis.

Notwithstanding all this, certain medical men have bitterly attacked the movement upon the ground that it was not inaugurated by medical men alone, and certain others because they were left out or kicked out; but most surprising of all, the editor of the Journal American Medical Association, in a lengthy editorial (December 12, 1903), condemns and criticises the movement in a manner at once unfair, unjust and altogether unbecoming the great journal of which he has control. Moreover, he is inconsistent and contradictory. It shows prejudice towards individuals, and was evidently inspired by a letter in the same issue of the Journal from one Knopf, a regular wail. "Throw a stone and hear a yelp and you may know a dog is hit." I reproduce right here a copy of a letter from this Knopf, which will show the cause of his animus. It is contemptible.

New York, November 11, 1903.

"*Dr. E. J. Barrick, Toronto, Canada.*

"Dear Sir: I have learned that there is to be an American Congress on Tuberculosis of which you are the President. I am anxious to be informed when and where the Congress is to be held, and who is the Secretary and what formalities have to be complied with to become a member? Thanking you in advance for your kindness, I am, very sincerely yours,

(Signed) "S. A. KNOPF."

"P. S.—If there is any printed matter (circulars, etc.) issued, will you kindly favor me with such?"

* * *

This letter was referred to the Executive Council of the Congress, who unanimously resolved that the connection of the applicant with the congress was not for its best interests, and the letter was never answered. Hence Knopf's wail. It was thought that Knopf was not "worth while."

There was another "great" man. His name does not exactly begin with alpha and terminate in omega, but he evidently thinks that all things begin and end in him. He was honored by the appointment to an honorary presidency, and notified of it, and the appointment was officially announced. The chairman of the committee on organization writes me as follows of this great man: "He was kicked out by the unanimous voice of the board for conduct unbecoming a gentleman. * * * He waited over four months, then knowing of the action, but secretly undermining the Congress, and did not resign or decline. He wrote a scurrilous letter, private, to a member of the Board. That letter found its way to the President, and it was regarded as so scurrilous and shameful that by unanimous action he was expelled, and his name ordered stricken off. Later, after he had published a scurrilous assault against those who had offered him a high courtesy, he sent in his resignation, and he was informed that his resignation was too late and that he had been expelled, and the official action sent him." Hence his tears.

* * *

Now, as to Editor Simmons' assault: What prompted him to say, "* * * those who are working in behalf of the organization known as the Lewis-Brown Congress are animated by pure motives,"—thus conveying the impression by inference that he thinks that those working in the interest of what he contemptuously calls the "so-called" and the "Clark Bell" Congress, are not actuated by pure motives? He thus impugns the motives and asperses the character of some of the most respected and distinguished sanitarians, lay and medical, in America. Why "so-called?" Is it not an accomplished fact? A Congress which he himself says has "the serious and earnest endorsement of the United States government," and to which already there have been appointed as delegates some of the most distinguished medical men of the world?

Dr. Simmons says that "we are neither ready nor is the time opportune for an International Congress." When it is recalled that, according to the United States census,

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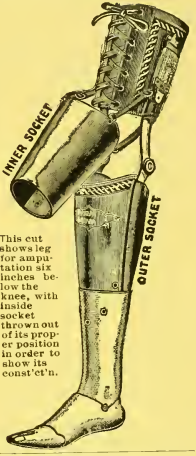

This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its const'ct'n.

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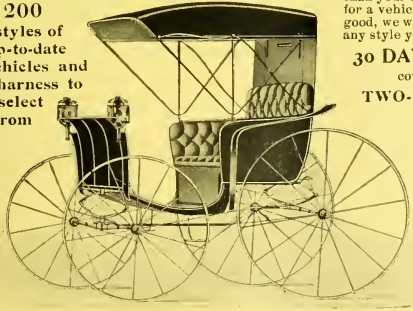

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111,000 persons in the registration districts alone in the United States died in 1900 from consumption, it seems to me that we are "ready," or should be, if ever, to at least make an attempt at preventing its ravages; and when we recall the success with which sanitary science has dealt with other diseases—the mortality of which is insignificant compared with that of the great white plague—we should be encouraged to hope that it can also be rendered less prevalent and less fatal. Is there a single reason why an organized effort should not be made to do so? Could a more opportune time occur than during the great world's gathering at St. Louis this year, when "congresses" will constitute a large part of the program? Dr. Simmons is captious. He cavils at the action taken by the Medico-Legal Society in inaugurating this great movement for sanitary reform, and appears to be envious or chagrined because it was not done by the medical profession. Why did not the great American Medical Association move in the matter? Why did not the American Public Health Association do so? I dare say in either event Dr. Simmons would have found nothing to complain of—notwithstanding the American Public Health Association is not composed solely of physicians, but like the Congress of Tuberculosis, is made up of sanitarians from every department of science and learning, as it should be. It embraces physicians, lawyers, statesmen, legislators, engineers, educators.

The problem to be solved is not a medical one, but is medico-legal, and requires that there should be influences invoked that can secure the necessary legislation to make effective the reform that is necessary to even partly solve it; and Dr. Simmons well knows with what want of success all attempts at legislation made by the medical profession have met. In the problem of preventing consumption is embraced every feature of sanitary science, drainage, plumbing, architecture, engineering, ventilation, heating, occupation, environment. Even the killing of rats, flies, mosquitoes and fleas comes within the province of preventive medicine—sanitary science—and it embraces also all the principles of hygiene. Thus it will be seen that many of the features are not within the province of the medical practitioner.

In my deliberate opinion, Dr. Simmons has not voiced the sentiments of those whom the great Journal of the American Medical Association represents, and he has laid himself open to just censure for thus condemning this great movement, apparently for the reason—and only reason—that it was not instituted by the American Medical Association.

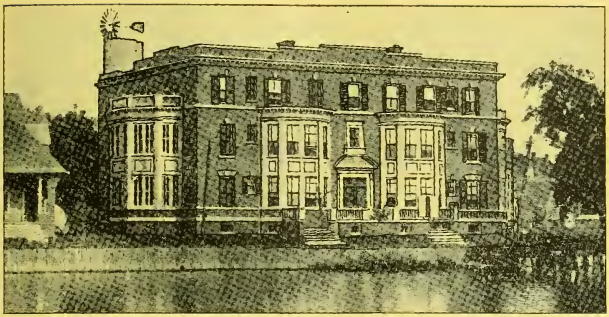
At any rate, no such flimsy objections can for a moment arrest the progress of the movement. It is as futile as the Pope's bull against the comet. The International Congress on Tuberculosis is a success: it will be held—will be largely attended by able and representative men, and it will be productive of great good, if in no other way than by awakening the people to a realizing sense of the terrible losses our people are needlessly suffering every day from a disease easily preventible, and clearly within the scope of sanitary science and legislation.—*Texas Medical Journal.*

The Antiseptic Cleansing of Mucous Membranes.

Mucous membranes are made up of submucous connective tissue and an underlying membrane covered with epithelium. According to location and function, this epithelium is squamous, stratified or columnar. Mucous membranes are usually well supplied with a capillary network of blood vessels in the sub-mucous connective tissue and certain glands, which on stimulation, either centrally through the nervous system or locally by direct irritation, secrete a viscid semi-transparent fluid of alkaline reaction. Microscopically this fluid is found to contain epithelium and leucocytes, and chemically it is made up of a nitrogenous principle called mucine, a little albumen, some salts, water, with traces of fats and extractives. The pathologic lesions affecting these membranes are the same as affect cells of like origin everywhere. They are subject to the same degenerative changes, both infiltrations and metamorphoses, inflammations, acute and chronic, atrophy and hypertrophy, ulcerations, necrosis, necrobiosis and tumors, etc. The most common condition is inflammation which in the early stages is characterized by an intense hyperæmia with hyper-secretion of mucous and desquamation of the epithelium. These viscid inflammatory products adhere and form inviting nests for the harboring and propagation of pathogenic organisms. In order to treat such surfaces therefore, they must first be cleansed of these irritating and infectious products and this cannot be accomplished by mere mechanical washing and scraping, but to be effective, some germicide or at least a powerful antiseptic, must be brought to bear, and in the selection of such agent, caution and judgment should be used.

Cadeac & Mennier following the important studies of Chamberland on the antiseptic properties of essential oils, have arrived at the following conclusions:

"We believe that the study of the physio-



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logic action of the bactericidal powers of mixtures of essential oils deserves the attention of the scientific world, for they are active antiseptics which have been wrongfully neglected." (Annals de l'Institut Pasteur, tome III.)

G. W. McCaskey, A. M., M. D. (Medical Record, July 13, 1889) says: To kill a pathogenic organism is one thing, to inhibit or suspend its growth and functional activity is quite another. Rendered powerless to multiply, the few septic organisms which gain access to a wound, are as harmless as so many particles of lifeless organic matter. Solutions of antiseptics 1-15th as strong as those required to kill a germ, impair its activity as long as the action of the antiseptic is continued, and for a variable time afterward. In solution materially weaker than 1 15th of the lethal dose, bacteria will flourish as if no antiseptic were present."

Experimental research at the Paris Pasteur Institute by Prof. R. de la Acene Bat-

tilana and L. Fayt with certain essential oils, thyme, eucalyptus, wintergreen, etc., leads to the following conclusions:

(1.) That they can be used with greater safety than carbolic acid and are more effective, non-irritating and non-toxic antiseptics.

(2.) They do not coagulate albumen, and have decided value as disinfectants.

Ideal antiseptics should possess the following essentials:

(1.) They should, apart from their immunizing property, be free from irritation, non-destructive to the vitality of the parts to which they are applied, and must not cause coagulation of the albuminous fluids.

(2.) They should possess minimum toxicity; be concentrated so as to bear dilution, be easy of transport, and of ready solution; they should be distinguishable by taste and smell but must not stain linen.

(3.) They should be solvents of pus, or at least soften the accumulations of broken-down cells, serious globulins and plastic exudations, dried clots of blood, mucin; and lastly possess decided antiseptic and germicidal action.

This high degree of efficacy is found in Huxley's formula for Hux-Sal, a granular antiseptic salt, which combines a number of well-known antiseptics and germicides, devoid of toxic effect and non-irritating to the mucous membrances and raw surfaces.

FORMULA.

R

*Liq. Antisept. (Huxley)	5 parts
Phenylacetamide - -	5 "
Sodae Chlor. Pur. -	16 "
Sodae Benzoatis - -	4 "
Pulv. Acid Borici Comp.	70 "

**Thymol, Phenol, Eugenol, Eucalyptol, Menthol, Methyl, Terpincol, Salicylate, Piperonal.*

The chemical and partially mechanical admixture of these antiseptics and antifermentatives, according to Huxley's formula, places at the disposal of the medical profession, a soluble, non-toxic, inexpensive salt for making antiseptic solutions, lotions, sprays, gargles, nasal and vaginal douches, etc.

Hux-sal in 5 per cent. solution, is equal to 1 in 1000 solution of bichloride of mercury as a germicide, and its pleasant odor and agreeable taste recommend it as a mouth wash and in cases where internal antiseptics are required to counteract gastric and intestinal fermentation.

Hux-sal is slightly alkaline, non-irritating to the mucous membrane and prophylactic.

Hux-sal has a wide sphere of utility for the surgeon, the dentist and general practitioner. On account of its non-toxicity, it calls for no special caution in weighing, involves no grave consequences through misunderstanding its dilution, and its cost is trifling. The 5 per cent. saturated solution of hux-sal makes a very strong antiseptic fluid, which can be diluted, for gargling syringing, or douching.

One teaspoonful of this salt will make a pint of active anti-bacterial solution; one part in one hundred of water, is quite strong enough for all ordinary purposes as a bland antiseptic fluid.

The immunizing properties of this salt can be advantageously employed in douching the nose, throat, ear, tonsils and vagina, wherever symptoms of a simple catarrhal nature are evident, as well as in cases of leucorrhœa or gonorrhœal infection.

Hux-Sal rapidly destroys infusorial life; it prevents fermentation or putrefactions, preserves animal tissues and inhibits the activity, growth and motion of low forms of life, while being without untoward effects on mucous membrane or raw surfaces. Hence its superiority over formaldehyde, carbolic acid, bichloride of mercury, or any of the usual disinfecting and antiseptic preparations in common use. It may be used in solution therefore by injection, lotion or spray, in any of the natural cavities of the body, such as ears, nose, mouth, throat, rectum, vagina, urethra and bladder. Even the 5 per cent. (maximum solubility) solution of hux sal does not coagulate serous albumen and it is free from the drawbacks of corrosive sublimate and similar caustic agents (which are moreover toxic), and is peculiarly free from all irritating properties even on most delicate tissues. Its penetrating properties are as great as those of formaldehyde, without however attacking (like formaldehyde) the tissues or chemically acting on them.

Inhalations of hux-sal are useful in some of the distressing symptoms of phthisis, bronchitis and purtusis, and the paroxysmal coughing is often almost instantly relieved by inhalations of a warm solution applied by means of a steam spray.

To sum up the usefulness of this antiseptic salt, whenever there is a mucous membrane which needs cleansing of germ infected products of inflammation, it will do its work effectively, promptly and pleasantly.—*J. Hatch, M. D., New York.*

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Literature on application.

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A physician in speaking of Glyco-Thymoline imitations, remarked that they reminded him of Oleomargerine—"which might be used when it was impossible to get butter."

"Imitations are at best poor substitutes and I never use them. I want the results that invariably follow the use of Glyco-Thymoline—genuine."

The Journal of the American Medical Association.

The Kansas City Medical Index-Lancet, in a recent editorial comments as follows on Dr. Culbertson's opinion that was expressed soon after the New Orleans meeting of the American Medical Association. The Index-Lancet says:

"It has been and shall continue to be the policy of the Index-Lancet to refrain from the discussion of things personal in its editorial columns, since we believe this space should be given over to scientific subjects. The tenor of the above quotation from the Lancet-Clinic, as well as the opinion expressed, are both of vital importance in the matter of independent medical thought in the United States, and we therefore think it excusable in stepping aside from the custom and saying a word in condemnation of a monopoly even in medical journalism.

Dr. J. C. Culbertson, editor and publisher of the Cincinnati Lancet-Clinic, has written well, and his vast experience and ability to observe gives his opinion weight. There is no doubt but that the official organ of a scientific body that acknowledges no superior in the world should confine its efforts to matters purely scientific, leaving the advertising to independent journals, because it is a well-known fact that the local journals more completely cover the territory in which they circulate than it would be possible for a journal of such general circulation as the Journal of the American Medical Association to do. As stated by Dr. Culbertson, the murmurs have been heard for some time and are getting more numerous and louder, which is proper. Combinations along some lines may be all very well, but to curtail the privilege to disseminate literature is against public policy. Again, it seems hardly possible that a highly scientific medical journal would find it necessary to send out emissaries to solicit subscribers, giving greatly reduced rates as an inducement to subscribe. Yet this is being done annually, much to the detriment of the independent journals that do not have a national medical association back of them. A medical journal, like a newspaper, generally reflects the educational characteristics of its subscribers. If its subscribers ask for a scientific journal, it will necessarily have to be forthcoming. This is of course taking for granted that there is no opposing force dominating the tenor of the journal. We have a precedent thoroughly demonstrating this fact, as instanced in the California State Medical Journal. When the profession of that state recently demanded that the editorial columns of the State Journal be confined to subjects strictly scientific, the change was at once made and there is no reason to doubt but that the same changes could be made in the Journal, only on a larger scale. On the whole, we think it is eminently fitting that this subject should be freely discussed, not merely because the present methods of the Journal of the American Medical Association are throttling the independent journals, but to save the Association from descending to a commercial basis, to the neglect of scientic medicine."

Writing on "Local Anesthesia," Horatio C. Wood, M. D., LL.D., Philadelphia, says the following.

The suggestion of Barker that eucain be substituted for cocain seems to have brought infiltration anesthesia almost to the water mark and has been followed out in Philadelphia by various surgeons with great satisfaction. The plan is readily carried out as follows: Powders are kept in stock in the operating room containing 0.02 grm. (3 grains) of Beta-eucain and 0.8 grm. (12 grains) of pure sodium chloride. At the time of the operation one such powder is dissolved in 100 cc. of boiling distilled water, and when it is cooled sufficiently 1 cc. of adrenalin chloride solution (1:1000) is added; 100 cc. of the resulting liquid contain 3 grains of B-eucain and 0.015 grains of adrenalin chloride. The whole 100 cc. may be used at one infiltration anesthesia, but according to Barker from 50 to 60 cc. usually suffices, even in such considerable operations as for the cure of hernia, castration. It is of course essential that the syringe used be aseptic and the surgeon should always employ the platinum needle with an iridium point which can, without injury, be disinfected in the flame of an alcohol lamp immediately before use.

Excerpted from the Therapeutic Review, Philadelphia, Feb. 1904.

Leonard Weber, M. D., Professor of Medicine, New York Post-Graduate Medical School and Hospital, consulting Physician to St. Mark's Hospital, New York, delivered a lecture on "Typhoid Fever" at the New York Post-Graduate Medical School, Nov. 2, 1903, in the course of which he said:

"I have also the records of three cases of grave typhoid sepsis saved by inunctions of Unguentum Credé—soluble metallic silver ointment—rubbed in thoroughly over various parts of the body, in doses of ½ dram. Though the usual stimulants and excitants were also made use of in these cases, I believe, nevertheless, that they were really saved by the antiseptic action of the Credé preparation.

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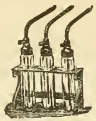
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Bismuth and its salts are insoluble, except in strong acids. This fact precludes the possibility of administering them in solution. As administered they form an unsatisfactory and unsightly mixture from an æsthetic standpoint. From a therapeutic standpoint the objections are more serious.

You have noticed, especially where a ℞ has been allowed so stand, that a solid precipitate is formed, which is very difficult to disintegrate. This fact renders the dose of the medicament uncertain.

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On Urotropin.

[Abstracted from the Annals of the Royal Society of the Medical and Natural Sciences at Brussels, Vol. XI. part 2, 1902.]

Dr. Vindevogel aimed at determining whether and in what manner Urotropin is decomposed in the organism into ammonium and formalin. The first tests which he made show that the decomposition of Urotropin is slight and slow in neutral cold solution (68 to 77 deg. F.), and is more active when the temperature is raised, especially on ebullition. It is also more active in acid solution, even if cold.

From these facts it would seem that Urotropin, when taken by mouth during digestion, is when it reaches the stomach in conditions favorable for the liberation of formalin, being in an acid medium at a temperature of 99 50 F. This is easily avoided, however, by administering the drug upon an empty stomach. Urotropin is then absorbed and circulated in the fluids of the body, the blood, lymph, etc., all alkaline or at least neutral media. It does not seem probable that formalin in quantity sufficient to give a reaction will be set free in them. But when the Urotropin has been eliminated by the kidneys and mixes with the urine in the bladder, it is in acid medium at a temperature of about 99.50 F., i. e. under conditions favorable for its decomposition and the liberation of formalin. It should therefore circulate in the blood of Urotropin and should liberate Formalin only after reaching the urinary bladder.

These considerations were borne out by his animal experiments. When Urotropin is administered subcutaneously to guineapigs, rabbits, dogs, Urotropin, but no formaldehyde, is found in the blood. Formalin is found in the urine of most of these cases, but no satisfactory explanation was found for the exceptions to this rule.

In healthy human beings the acidity of the urine is always markedly increased by Urotropin. Formaldehyde is found in most of their urines, but here again there is no explanation for the exceptions.

When the urine is rapidly voided after excretion, it does not contain formalin. The demonstration of formalin is, however, easy, when the urine has remained three hours or more in the bladder. Hence Urotropin in man is absorbed and circulates unchanged. It is eliminated by the kidneys unchanged, and the formalin is set free only in the bladder.

From this last conclusion it follows that Urotropin may be used to set free formalin in the urine, and that it will be found useful whenever it is necessary to effect vesical antisepsis.

Vindevogel then records 10 cases, in all of which the acidity of the urine, when of normal reaction, was markedly increased, and neutral and alkaline urines were acidified. Especially in chronic cystitis accompanying prostatic affections Urotropin gave good results; there was a manifest amelioration of the most troublesome symptoms, the dysuria, pollakiuria, etc. It always effects a rapid improvement followed by a complete cure in phosphaturia; success is more perfect, rapid and permanent than under the mineral acid treatment.

Vindevogel believes also that it should render good service in cases of uric acid calculi. By keeping the urine acid and maintaining the phosphates in solution, it should prevent the increase in size of the uric acid calculus from the precipitation on it of phosphates.—*Dr. Vindevogel, Laureate of the University of Brussels, 1897–1899.*

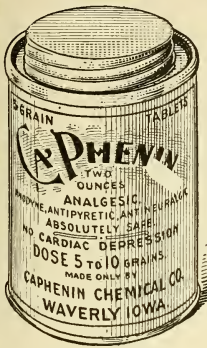
Glycogen in Diabetes and Albuminuria.

The interest shown in the great therapeutic application of glycogen to the treatment of disease, increases as authorities in the chief European medical centers report on its value in the treatment of hitherto unattempted fields of investigation. It has now been proved useful in appendicitis, blood poisoning, albumenuria, diabetes and especially where the two latter occur in the same patient.

Dr. M. Laumonier at the December meeting of the Paris "Societe de Therapeutique," spoke of glycogen in albuminuria and diabetes and remarks that observers find that diabetic patients lose the glycogen of the liver and muscles, which accumulates in organs which normally contain but little, such as the kidneys, the nerve centres, the capillaries, the blood, and especially the leukocytes.

In order to determine what would be the effect of glycogen in diabetes, the author administered it to dogs, who had been rendered diabetic by phloridzin or by extirpation of the pancreas. The results being satisfactory, glycogen was prescribed for a certain number of patients suffering from arthritic or hepatic nervous diabetes. This was administered by the mouth, one gramme being administered in twenty-four hours. Most of the patients improved, not only from their glycosuria, but also from other symptoms of diabetes, namely, polydipsia, and polyuria, wasting and loss of strength. With some patients the improvement was long in developing, and only obtained in conjunction with severe diet.

Other cases, where the cause of diabetes appeared to be similar, were able to take (after a few weeks administration of glycogen) a certain quantity of carbo-hydrates



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FORMULA—A Lithium Compound of Formaldehyd dissolved in Aqueous Fluid Extract of Corn Silk and Couch Grass (24 grs. to fluid ounce).

DOSE—Tea to tablespoonful every three or four hours, preferably in hot water.

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NEPHRITIS	CALCULUS
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CYSTITIS	BACTERIURIA
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without increasing the glycosuria and maintaining the minimum amount of urinary sugar which they had attained.

In the relatively frequent complication of diabetes with albumenuria and that of diabetes is often, to a certain extent, antagonistic, the first disease requiring an absolute milk diet, or at least, one less rich in carbohydrates, and preferably, with a vegetarian tendency; the second on the contrary, requires a diet from which foods rich in sugars and starches should be eliminated.

Albuminuria, being a serious complication, requires our first consideration, which brings about, when glycosuria is not improved, an increase in this symptom, and enfeebles the patient considerably. On the other hand, considering the condition of the kidney, it is impossible to make use of moderating medicaments (such as antipyrine,) which are toxic. We are therefore, usually compelled to submit the patient to alternative treatments, which have the serious inconvenience of being reciprocally disadvantageous.

Dr. Laumonier finds its methodical employment in these conditions, modifies the glucosuria and other symptoms characteristic of diabetes, polyuria, polydipsia, wasting and progressive loss of strength, etc., yet how does it act? Since there can be no question here of pancreatic diabetes, its influence can only be exercised on general nutrition, the nervous system or the hepatic cells. Consequently, which of these three elements is it that is reached by glycogen? The author concludes that glycogen acts on the affections of the hepatic cell, as a functional excitant, either moderating or increasing its activity. The rapidity with which amelioration is manifested, is an indirect proof of this. It is very probably by the same mechanism, a mechanism hitherto unknown in detail, that it acts in diabetes to relieve the serious symptoms. This opinion occurs absolutely with what we have learned from the researches of de Nittis, de Luschi et Teissier and de Rorig, according to which glycogen counteracts effectively infections and intoxications, by reason of its tonic action on the elements of the tissues attacked, as well as on the leukocytes.

These researches bring us to another conclusion, which is very important. Glycogen gives, as we know *in-vitro*, by reduction, dextrines and maltoses which finally produce glucose. Does the same phenomenon take place in the economy? Dr. Laumonier thinks not. If this were so, how would it be possible to explain that glucose produced by this reduction of small quantities of glycogen, (20 centigrammes to 2 grammes as a maximum dose) can act in a manner so remarkably efficacious and yet so differently from ordinary glucose? Is there between glucose and glycogen, a form otherwise than the form we know and which in the amylolysis of the tissues, has escaped observation until now? Ought we to admit on the contrary, a form of oxidation analogous to the gluconic or glycogenic for example? This is an obscure point which requires investigation in order to arrive at a rational interpretation of the multiple therapeutic effects of glycogen.

In the matter of administration, some care should be shown in selecting a pure product, such as is made under the supervision of Dr. Jacques de Nittis of Paris. Glycogen is very apt to decompose if not carefully preserved in hermetically sealed ampulus for hyperdermic use, or in the dry form, which should only be given in capsules, so as not to come in contact with the buccal secretions.—*Frederic S. Mason, M. P. S.* (*Gt. B.*)

Collargolum as a Prophylactic for Septic Processes.

[Translated from Die Therapie der Gegenwart, February, 1904.]

Collargolum has been repeatedly recommended in the pages of this journal for use in septic infections; and it has given brilliant results in the most varied cases to me as well. I propose to confine myself at this writing, however, to its employment as a prophylactic.

If the remedy exerts a favorable influence upon developed infections, it must be able to prevent their occurrence and extension. Guided by this idea, I have for some time ordered for the first three days prophylactic inunctions of Unguentum Crede in all puerperal cases in which manual interference had been necessary or which seemed to have been endangered by prolonged labor or repeated examinations. All the 30 cases handled in this way had an entirely normal puerperium.

Of course this number of cases is not absolutely conclusive, for the deliveries were conducted with all the usual precautions. But in country practice antisepsis and asepsis cannot strictly be complied with, even with the very best intentions, especially in cases of emergency, and the patient has usually been examined beforehand with hands by no means beyond reproach. It will therefore be readily understood why I ascribe the uniformly favorable course of the puerperia to the Collargolum. The operative interferences included three manual separations of the placenta, four tamponades for atonic post-partum hemorrhages, and one suture of the cervix. These cases, as experience teaches us, are very susceptible to infection; yet they all ran their course without temperature rise.

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Listerine is a swift and sure destroyer of infusorial life; it prevents the various fermentations, preserves animal tissues and inhibits the activity, growth and motion of low forms of vegetable life: hence Listerine may be relied upon to destroy the activity of the living particles which constitute contagion whenever brought into intimate contact therewith.

For diseases of the uric acid diathesis: **Lambert's Lithiated Hydrangea**

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis.

Descriptive literature may be had upon application to the Manufacturers,

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Be assured of genuine Listerine by purchasing an original Package.

I use Unguentum Crede in in these cases for two reasons. The process is simple, and the inunctions can be left to the patient's attendants. Besides, they seem to be the most appropriate medication in these very cases. In a pronounced septic process a large quantity of the drug should be introduced into the blood current at once; this can best be done by intravenous injection. But silver introduced in this manner leaves the body very quickly; Lang has given us experimental proof of the fact. For prophylatic purposes large doses are less necessary; it is more important to keep the body steadily impregnated with silver. This can best be effected by the inunction, with which a continuous absorption occurs through the subcutaneous cellular tissue.

Care must be taken to make the inunction thorough. It should take 30 to 40 minutes, until the black stain that the first application causes has entirely disappeared. I order 45 grains inuncted twice daily, using the legs and back alternately for the purpose. Occasionally I have seen a temporary general pruritis occur after the inunction without there being any visible reaction on the skin.—*Dr. J. Camerer, Wertheim-on-the-Main.*

Aural Congestion with Threatened Abscess.

I would like to mention to my confreres that, in the treatment of acute attacks of aural congestion, with every indication of suppuration, both internal and external, and seriously jeopardizing the tympanum, and not infrequently with evidences of threatening abscess accompanied with the most lancinating pains, I have prescribed Antikamnia and Salol Tablets with most satisfactory results. The congestion, fever and pain promptly yield to the persistent use of these tablets, and to attain this I ordered two tablets to be given every two hours. I am firmly convinced that with careful ablution and syringing of the external aural cavity with a mild antiseptic and anodyne solution, and the administration of this remedy, I have aborted the threatened attack and thereby undoubtedly saved the patient from a suppurative sequela, and no doubt in many instances, from operative interference, necessitating the trephining of the spenoid, or the opening of the antrum to save life. As every practitioner knows, the operation is not infrequently fatal, particularly if the case be an advanced one and the patient an aged one.

As to the local application, I simply resort to tepid water, to which may be added a mild antiseptic, say five grains boric acid to each ounce and a little tincture opium. This makes an admirable application. This solution carefully injected from two to four times daily to warm and cleanse the vestibule of the ear, and with the administration of Antikamnia and Salol Tablets, or Antikamnia and Codeine Tablets, the practitioner will be rewarded with most gratifying results.—*C. L. Steensen, A. M., M. D., Professor of Materia Medica, New York. Author "Naso-Pharyngeal Disorders," etc.*

Glycogen in a Case of Blood Poisoning.

The case is my own, and will, I believe, be read with interest.

In November last I was unfortunate enough to be thrown from my carriage in a runaway accident, which injured me quite seriously, breaking both bones of the left forearm, as well as causing a slight fracture of the styloid processes of the right arm, rendering me quite helpless, besides causing me a severe scalp wound.

The lower part of the ulna was crushed and the space between the two bones has filled in and caused them to grow together, thus making impossible pronation or supination, so that the hand is only able to rotate half way or point the thumb upwards and not outwards.

In spite of massage, which has helped my arm considerably, it will be necessary to break the bones again to remedy these conditions, and this I think is unadvisable, owing to the complicated fracture and the much bruised condition of the ulna.

Two weeks after the injury, blood poisoning with symptoms of rigors, fever, with red streaks running from the hand and along the course of the lymphatics appeared on the arm.

I was removed to my country home at Milford, Pa., and placed under the care of Dr. Robt. Barckley, formerly of Jefferson Medical College, Philadelphia. By this time my condition was quite critical, and it was with some difficulty that he was able to arrest the progress of the infecting causes, by applications of mud poultices and internal treatment with Mist Ferri et Ammon. Acetat. and Strychnia Sulph. However my general condition was slightly improved, and in January I was put on the glycogen treatment, with a view to eliminating the infecting organisms, for as we now learn, glycogen appears to have remarkable properties in their elimination, through stimulating the phagocytes of the blood. Glycogen was used, and when the temperature was reduced, I continued with capsules three times a day. In a short time the skin resumed its normal condition, the appetite improved, and I was able to digest my food well, the functions of the intestinal tract acting perfectly, and I attribute this improvement of the pyemic condition to the exhibition of glycogen. There is no doubt

ANTIPHLOGISTINE'S

THERAPEUTIC ACTION is based in theory upon the following fundamental principles, its prime object being to keep the blood circulating in the diseased part:

The blood, which normally circulates fully and freely through the vascular system, is the food supply of the millions of cells which make up the body structure. Inflammation means certain successional deviations or interferences with the circulation in some part or parts. In health the functions of the vascular system are automatically controlled by the central nervous system. Three-fourths of the body composition is fluid—chemically speaking, water, and as a magnet has affinity for particles of steel, so Antiphlogistine has affinity for water. Antiphlogistine is an antiseptic, a non-conductor of heat and a vasomotor stimulant. The skin may be regarded as a permeable membrane, separating two fluids of different densities, the blood and Antiphlogistine. If Antiphlogistine is applied hot under such conditions something definite happens and that scientifically—an interchange of fluids, most marked towards Antiphlogistine; hence the deduction that Antiphlogistine acts through reflex action and dialysis, the latter scientifically including the physical processes of exosmosis and endosmosis.

DEEP-SEATED STRUCTURES—If Antiphlogistine is applied warm and thick, the thicker the better, for pneumonia, pleurisy, bronchitis, peritonitis, or any affection involving deep-seated structures, it maintains a uniform degree of heat for twenty-four hours or more; it stimulates the cutaneous reflexes, causing a contraction of the deep-seated and coincidently a dilatation of the superficial blood vessels; at the same time it attracts or draws the blood to the surface—flushes of the superficial capillaries—bleeds but saves the blood; thus the aggravating symptoms will be almost always immediately ameliorated; congestion and pain are relieved; the temperature declines; blood pressure on the overworked heart is reduced; the muscular and nervous systems are relaxed and refreshing sleep is invited.

SUPERFICIAL STRUCTURES—It is no longer proper to treat with the old fashioned bacteria-breeding flaxseed poultice, boils, felons, sprains, chronic ulcers, inflamed glands, periostitis and other types of inflammation involving comparatively superficial tissues. Antiphlogistine is a soothing antiseptic well adapted to sensitive and abraded surfaces. It draws out or absorbs the liquid exudate from the swollen and sensitive tissues, the result being that the blood is permitted to circulate freely through the affected area and nourishment is conveyed to the injured cells. Through reflex action and endosmosis a stimulating, alterative, tonic and soothing influence is exerted upon the affected cells, lymphatics and other tissues.

GENERAL DIRECTIONS—Always heat in can (never on a cloth) by placing it in hot water. Do not allow water to get into the medicine. When as hot as can be borne, take a suitable knife and apply as quickly as possible, spreading the Antiphlogistine on the skin over the affected part, at least an eighth of an inch thick and covering promptly with a liberal supply of absorbent cotton and a suitable bandage or compress. Needless exposure to the air or contact with water markedly reduces the remedial value of Antiphlogistine, hence make all applications quickly. Remove dressings as soon as they will peel off nicely—in twelve to twenty-four hours.

To insure economy and the best results always order a full package and specify the size required—Small, Medium, Large or Hospital Size.

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that it acted as a heart tonic, increasing metabolism and normal conditions during convalescence. The only stimulant used was wine of phosphyglycerate of lime (Chapoteut,) containing 10 grains of the salt to the fluid ounce of malaga wine, which helped my nervous symptoms remarkably. We must remember that bacteria once introduced into the system by the lymphatics, pass onward to the neighboring lymph glands, where they are either destroyed by the bacteriolytic action of the cells or they break through the lymphatic barriers, and invade the blood. In the blood itself, they have to contend with the germicidal activity of the plasmas the action of the leukocytes and the bacteriolytic properties of both the white and red corpuscles.

In my case, they seemed to have passed unscathed through these obstacles, and owing to my impaired condition of vitality resulting from the shock, established themselves well at the seat of the lesions, caused by broken bones.

The happy effects of the glycogen treatment explains the importance of the liver functions, for it is the great glycogen-excreting organ, which counteracts toxines and stimulates phagocytosis. It has proved effective against the bacillus of anthrax, streptococcus auriens and oidium albicans. We all know that the bacteriolytic power of the lungs and kidneys is less than that of the liver, but they also play an important part in eliminating processes which are primarily accentuated and kept in active condition by the glycogen present in the leukocytes.

We can only explain on these grounds the remarkable recoveries (without operation) in appendicitis, which have been treated with glycogen.—*Louis de Plasse, M. D.*

Relative Value of Iron and Arsenic as Hematinics.

F. Aperti (Centralbl. fur innere Medizin, Jan. 6, 1900) has confirmed and explained by elaborate experimentation the opinions held by generations of physicians as to the value of iron and arsenic in the treatment of anemia. He shows that no system of diet and no other medicinal preparations possess in anything like the same degree the power of iron and arsenic to increase the number of red blood corpuscles and the amount of contained hemoglobin.

Further, his experiments establish beyond a doubt that these two substances act differently. Arsenic increases the number of red blood corpuscles, but has no effect upon hemoglobin production. Iron, on the contrary, is alone capable of supplying that element, hemoglobin, the true essence of life, for which the red blood corpuscle is merely a means of transport.

The only rational treatment of anemia, therefore, consists in the *combined* use of iron and arsenic—iron to augment the amount of hemoglobin; arsenic to increase the number of red cells. The addition of manganese, the most potent of all oxygen carriers, and of strychnia, makes a prescription of acknowledged value and wide applicability.

Sangogen meets all these requirements perfectly. This preparation is put up in dry-filled capsules only. Each capsule contains one and forty-nine fiftieths grains of a predigested organic compound of iron; one-fiftieth grain of a predigested organic compound of manganese; one one-hundredth grain arsenic, and one one-hundreth grain of strychnia. It is the most easily assimilable and rapidly diffusible of all blood makers and tissue builders. The usual dose is one or two capsules three times daily after meals.

Samples will be sent upon request by the manufacturers. Kindly address Solway-Annan Company, Washington, D. C.

In all cases of gastric irritability it is a matter of importance to leave off such foods as the patient is then using and begin with a bland, easily-assimilated food—starchy or nitrogenous (usually the latter) according to the conditions that exist. One of the latter is Burnham's clam bouillon; it is rich in all the principles which go to nourish the economy, and has a quieting effect on the stomach. It is in fact, retained in some instances where no other food would remain on the stomach. I give this food first in tablespoonful doses every hour or so until the stomach becomes tolerant. After this the patient can take it in wineglassful doses every two to three or four hours.—L. B. in the Alkaloidal Clinic.

Am. Med. Ass'n Convention.

We have been informed that The Deimel Linen-Mesh Co. will again have an attractive exhibit at the Am. Med. Ass'n meeting at Atlantic City in June. Dr. Deimel Underwear is deservedly popular with the physician who knows that the Linen-Mesh is a delight to the skin and that its absorbent qualities quickly remove all bodily moisture, giving a perpetual feeling of cleanliness and comfort.

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Tongaline, q. s. ad.	3 ozs.

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MEDICAL BOOKS EXCLUSIVELY.

The season approaches when physicians order their wealthy clients to take a trip to one of the celebrated European Spas for a course of the waters to set their inner organs at rights, and to free them of their trouble caused by faulty tissue metabolism. Those, however, who can afford the luxuries of a trip abroad are very few indeed, but nowadays even the poorest patients may obtain the same benefits without leaving their homes. The most celebrated of those Spas is brought direct to the door of the physicians in a very pleasant and agreeable form. We have reference to Kutnow's Improved Effervescent Powder, about which we are quoting the following paragraph from this month's number of the "London Practitioner":

"Kutnow's Powder is a white powder containing the ingredients of the natural Carlsbad Spring. It possesses a pleasant taste, somewhat resembling the sherbet of our boyhood's days. It forms a very pleasant laxative medicine, acting, if taken in hot water before breakfast on an empty stomach, in the space of about one hour. In these days of constipation, due, as is said, to civilization and over-refinement of food—it is useful to know of an aperient remedy which is not nauseous to take, Kutnow's powder will be found most useful to sufferers from hemorrhoids, as it is gentle in its effects, while relieving the loaded portal system by its hydragogue action. The advantages of such a course of saline aperient medicine is often strikingly apparent in the increased sense of a well-being which follows the flushing of the excretory channels and the ensuing clearance of noxious products."

Report of Malarial Cases Treated with Phenalgin.

There is no doubt that Quinine holds first rank in the treatment of malaria, but, in many cases, owing to idiosyncracies peculiar to certain individuals, it must be reinforced by other remedies, if not totally supplanted.

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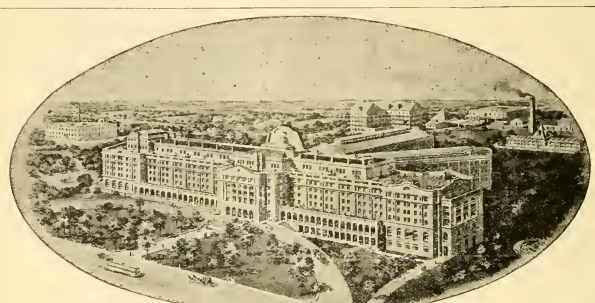

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A Plea for a More Thorough Examination and Rational Treatment of Nose and Throat Diseases.*

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Allow me in the very outset of this paper to say that I do not wish to leave the impression on any one that I am more expert or less free from errors in the treatment of nose and throat diseases than hundreds of others who daily practice this specialty; but the points which I do wish to mention are such as have been learned from what I conceive to have been my own errors in diagnosis and treatment and which I believe will not be too unimportant to bring before this Association.

Eperience, while often a sad teacher, is nevertheless a highly important one. Through this source much information is acquired by hte thoughtful physician which can never be obtained from books and periodicals.

Often have I gazed upon copies of that celebrated painting called "The Doctor" and marveled at the trueness to life therein dedicted by the great artist. You all have seen it: the languishing child lying upon a couch of chairs in a room which betokens poverty; the family doctor, with his chin npon his hands and his expression tha of earnest and deep meditation over the illness of the little one whose feverish form lies before him, and upon whose wan face falls the dull rays of light from the little shaded lamp upon the table; the mother's head buried in grief upon a near-by table, while upon her shoulder rests the strong arm of her tender husband, whose face, appealing and sorrow stricken, listens for the verdict from the bedside of his child.

Who is there that does not admire the wonderful experience and the intuitive knowledge of the old family physician?

What is it that tells him of the serious illness of some little patient who perhaps is too young or even too feeblé to make known his physical sufferings? Is it a knowledge he has derived from books, where diseases are discussed in clear, cold type? No, it is a knowledge which he cannot explain to others, an intuitive understanding which comes from experience and observation.

And so it is that there are no diseases in any part of the human frame which can be treated successfully by routine methods as furnished by text-books but which will be most successfully managed by the physician who studies minutely every case and combines intuitive and practical knowledge with that gained by reading and experience.

Progress in the recognition and treatment of all diseases is the daily history of medicine, and in no department is this truer than in nose and throat diseases. However, this advancement in nose and throat work has only been reached by those who have studied deeply into all their pathological conditions and have combined research and experience with practical applications.

The fact that every portion of the anatomy is dependent upon every other portion for the successful performance of its own individual function, must necessarily indicate how important it is for the physician to be broad-minded in his studies, and not practice with the idea that the portion of the body to which his practice is limited is a distinct entity by itself.

If I might be allowed a criticism, it is a fact that too many men enter nose and throat work without the proper preparation, which largely means that they have had no pracital experience in the treatment of any other class of diseases. The laity itself is in much ignorance of this same point, for I have often been asked if a specialist also had to study medicine!

The specialist who thinks that with the triad armentarium, spray, cautery and knife he is able to treat and cure all nose and throat diseases, will in a short time come to grief. There is entirely too much treating of symptoms in medicine and not enough causes. It may seem odd for this statement to come from one who limits his practice to these diseases, but I honestly think that many a patient is today suffering from too much treatment. There is such a thing as overdoing matters, and the habit these days for people to have their nose and throat treated year in and year out, is producing troubles which before did not exist.

Not long ago a patient came to me from a distant city in Florida, and like all those who have the treatment habit, she was able to tell me exactly her nose and throat troubles before an examination was made. She had only a few days to stay in the city, but she wanted treatment. From her I ascertained that for the last three years she had been under the constant treatment for her nose and throat. She was treated for weeks in New York by a certain well-known specialist. On her way home she had to stop in Baltimore because she felt the need of treatment. If she had not have been on a through sleeper to her home, I imagine that she would have been treated at intervals on the way. She reached home, and the specialist there continued to treat her three times a week. When I examined carefully the nose and throat condition in this lady, there was found only the dry irritative state of the mucous membrane incident to too much local treatment. "Madam," said I, "do you wish me to tell you honestly the severity of your trouble? Then if you wish such a statement from me, I would say that you are

*Read before the recent meeting of the Georgia State Medical Association, at Macon.

suffering from too much local treatment."

This statement is no idle fancy of the mind, for I am firmly convinced that many people today are afflicted with the treatment habit. Several years ago I read a paper before this Association on "The Use and Abuse of Nasal Sprays." With increasing years of experience, I am more than ever convinced that the spray habit is becoming a fixture upon many of the American people. A more pernicious habit and one that affects more disastrously the nasal mucous membrane can hardly be found than that of daily spraying the nose with some oily menstruum containing menthol. The "spray doctor" is even now spoken of and held in ridicule by the laity, for it does not take a Solomon to see that the specialist who daily calls "next" to the waiting horde of sniffers who fill his reception room, is covering up his professional ignorance with cheap explosion of compressed air. Nor must we forget, in this crying desire of the uneducated public to have their noses sprayed, that it is just in such a manner that cocaine habitues are produced. When a patient is obliged to go to a specialist every day from the craving desire to be sprayed, then the whiskey bloat is in no worse physical condition than is this same spray individual.

Specialists in nose and throat work must recognize the fact that local treatment is often secondary to the systemic. The man who daily treats his patients in an automatic manner, because when he looks into a nose or throat he sees certain objective appearances, must necessarily keep his patients coming to him indefinitely, for all such treatment will never be curative.

If the physician will study his cases thoroughly, and make a most careful examination at the beginning, it will not be often that a patient will have to spend a good portion of his time at the doctor's office.

Hence the intent of this paper is a plea for a more thorough and rational treatment of the various nose and throat diseases, and I may add a plea for local treatment only when such is needed. I wish also to raise my voice against such universal and indiscriminate use of sprays and prolonged course of treatment, which in many cases must destroy the physiological functions of the mucous membranes and stamp an opprobrium upon this recognized specialty.

How often have you heard some one say: "Well, I have been going to Doctor So-and-So for the last six month, and I am no better now than I was before?" Surely there is some ground for such adverse professional sentiments as these, and it is our duty as physicians to deal honestly with our patients. It is this honesty which distinguishes the true physician from the quack, and because this patient is able to pay you a good fee is no reason why he should be kept under treatment when you know positively that his apparent improvement will last only so long as the treatment continues. There is not the physician living who does not sometimes make mistakes, for I have no confidence in such as do not, but I do believe that mistakes are often the result of the lack of thoroughness in the examination of cases. Other mistakes are sometimes due to a habit of routine practice, in using the same line of treatment for all cases.

Let us take some of the subjective symptoms so often complained of by persons who think that they have some nose and throat disease, and see just what pathologic conditions they might represent, and see how easy it would be to treat the same erroneously.

1. Take first pain, which is a subjective symptom of such prime importance to every individual.

In the nasal cavities proper this does not often occur unless there is severe acute inflammation or severe traumatism. In acute rhinitis, for instance, pain, when it does exist, is of the hot, burning character, producing more pressure and conjestive neuralgia in the surrounding parts than in the cavities themselves. The membrane is over-sensitive, especially to cold air and a dusty atmosphere. For this reason, I am fully convinced that it is illogical to allow people suffering with acute rhinitis or acute cold in the head to go out in the cold during winter and have the nasal cavities sprayed, thus affording double opportunity for more irritation of the mucous membrane. These cases belong to the family physician, and not to the specialist, as such need mild depletive measures at home if we would see the nasal mucous membrane return to its normal state.

Pain in the region around the nose is often indicative of some pathological condition of those cavities which empty their secretions through the nose. Pain on the side of the nose, radiating out to the cheek bones, is at least indicative of an antrum disease following an acute rhinitis.

Severe pain at the root of the nose, and a little external to the median line, especially if be increased on pressure, is suggestive of a threatened abscess in the frontal sinus. However, pain as a diagnostic help in nasal diseases, is too uncertain to be of any material aid.

2. Take a second subjective symptom—that of sneezing. In acute rhinitis we recognize this as a part of the disease, and the conjested irritative state of the mucous membrane would offer sufficient explanation for the frequency of this symptom. The old idea that whenever a person sneezed he was taking cold, has long ago been exploded, for there are too many local and systemic conditions which will produce this irritative explosion without necessarily meaning a cold.

There are some people who might almost be termed "habitual sneezers," and with these I do not class that numerous horde denominated as "hay-fever and rose cold sufferers," who sneeze on the slightest provocation. With this class of patients it is the first thing they are conscous of in the mornings; they are guilty of it whenever they pass through varying intensity of lights; the passing from a

cool atmosphere into that of a warm room will cause it, and even excitements of various kinds must be reckoned in the same category.

How foolish then to treat this symptom alike in all individuals! It would extend this paper to an unpardonable length to go into any minute details, and I shall only mention some of the causes of this symptom, and then you can see how necessary it is to study minutely every case if you wish to treat the same successfully.

(a) There is a class of people who have what I have denominated as hyperesthetic rhinitis. If you will examine the nasal cavities of these individuals nothing abnormal will be discovered, and yet they will have spells of sneezing. If you will touch the mucous membrane in these cases you see its extreme sensibility.

This condition I have most often found in neurotic individuals, and in those who do not take enough out-door physical exercise. Local treatment is almost valueless, and results will be best accomplished by close attention to hygienic laws and careful building up by the family physician.

(b) There is another class of cases where the nasal cavities will show nothing pathological, and yet by further careful examination such will be found to have a marked uric acid dyscrasia. The blood is loaded to excess, and the nasal and naso-pharyngeal mucous membrane is constantly irritated. Think of spraying such an individual for the relief of his nasal symptoms!

(c) Then again we find those suffering with this symptom where a superficial examination of the nasal cavities reveals nothing abnormal, and yet by closer scrutiny and shrinking of the membrane we discover a polypoid condition of the mucous membrane at the posterior end of the middle turbinate and perhaps even a small polypus itself. Here is the focus of irritation, to be cured only by operative intervention, and yet too often have they already become the victims of the spray habit.

These are some of the chief causes of the symptoms referred to, and yet none of us would be contented with even such a limitation.

3 Take another common subjective symptom, that of stenosis or stoppage of free respiration through the nose. Here it is that the unskilled and inexperienced get in their deadly work. The tissues covering the turbinate bones, as we well know, is known as erectile tissue, such as swells and shrinks according to the amount of blood which it contains.

The most usual cause of nasal stenosis is a swelling of this tissue over the turbinates. This swelling and consequent blocking of the nasal passages, may be due to either a true hypertrophy of the stroma elements of the membrane itself or a swelling due to a stasis or an engorgement of the erectile spaces through the determination of more blood to the parts. If due to the latter the mucous membrane will shrink entirely under the application of cocaine, and if to the former the hypertrophic condition will still manifest itself. The treatment of these two conditions must necessarily differ, and here it is that the successful rhinologist has been benefited by keen observation. Reduction of the membrane in the first instance, by means of the cautery, snare and knife, is frequently justifiable, but in that due to stasis, we must first seek the cause of this condition if we would have permanent successful results.

Take an instance of the latter of the man who imbibes freely at night, and even during the day, and often eats inordinately. Every morning he suffers with nasal stenosis. But shall we cauterize or snare such a mucous membrane? Certainly not; open the bowels freely, stop the pernicious mode of living, and the nasal stenosis will take care of itself.

Dr. H. J. Mulford, in a very practical article, has called attention to the importance of urinalysis in the proper treatment of nose and throat diseases. He has shown, by reporting several cases, that the condition of the kidneys was in a large measure responsible for certain changes seen in the nose and throat, and which entirely disappear under systemic treatment. The specialist who is successful in his practice is the man of broad observation, who looks beyond the narrow confines of the organs which he daily treats, and remembers that the whole animal economy is involved in the successful function of the smallest portion of the human frame.

4. Take now an objective symptom of nasal trouble, that of a discharge, and let us see how unscientific it is to treat the symptom and not the cause of the symptom. Many a nasal cavity is daily sprayed for a discharge from the same, without any reference as to where it originates. When we remember that a discharge from the nasal cavity may have its origin from the maxillary antrum, the frontal sinus, the ethmoidal cells, the sphenoidal sinus and from a diseased condition of he mucous membrane itself, one can readily see that such may be a symptom of various pathologic conditions. Hence, for this reason, a most thorough examination is necessary whenever a patient consults the physician for the relief of a catarrhal discharge from the nose. Time does not permit me to mention the signs and symptoms which enable one to make an exact diagnosis in such cases, my main object being to call attention to the manifold origin of this one symptom.

During last winter I saw several cases where an attack of the grip was followed by an abscess of the sphenoidal sinus. Ordinary treatment failing to effect a cure was the reason why they were sent to a specialist. The symptoms in these cases were almost universally the same. Intense pain in the top and back of the head—a feeling as if the head was tightly constricted in a band—pain worse in the early morning hours; a muco-purulent discharge from the nose at intervals. Objective examination showed an engorged mucous membrane. By shrinking the tissues with cocaine on a cotton applicator, the source of the

discharge could be seen coming from a point high up at the posterior end of the middle turbinate, frequently running down along the posterior portion of the septum. By contracting still further the tissues around the opening of the sphenoidal sinus, drainage was established in the natural way, and in a few moments the patient would experience relief. By using exactness in the drainage, these cases recovered in a few days, and by recognizing the source of the discharge one could treat it intelligently and at the same time quiet the patient as to the prognosis.

The habit of using and prescribing sprays indiscriminately is a most pernicious one, and such should receive more thoughtful consideration than has heretofore been the case.

Take another common symptom, and that is the continual dripping of mucous secretion into the naso-pharynx, producing that annoying condition of post-nasal catarrh. In the large majority of cases this secretion comes from the mucous membrane of the nasal cavities, but there are many cases where it is due to the secretion coming from some one of the neighboring cavities or from a diseased condition of the naso-pharyngeal mucous membrane itself.

Therefore, we can readily see that if the source of the secretion is not located satisfactory results in the treatment cannot be obtained by the ordinary use of sprays and douches. There is a distinct disease of the naso-pharynx, known as chronic naso-pharyngeal bursitis, where the pharyngeal sac or bursa has become chroically inflamed and pours out continually a tenacious mucous. Patients suffering with this condition will complain of expectorating once every twenty-four hours a distinct scab of mucous, usually dry on one side and moist on the other, where it has been lodged in a depression over the pharyngeal bursa. On inspection with the post-nasal mirror one may readily see the depression in the centre and a small opening leading into the bursa. Such cases are very unsatisfactory to treat, because you can benefit, but seldom cure. It is certainly honest, therefore, to recognize these cases and tell the patient in the beginning what he or she is to expect, and not have them to become disgusted because they seem to be getting no better. I am firmly convinced that cases of this character are frequently wrongly diagnosed.

Time does not permit me to extend this paper, even though there are many other common conditions of which I might speak, and which are too often overlooked by the busy specialist. Conservatism and rational treatment of the nasal mucous membranes are gaining their adherents every day. Specialism too often causes us to be narrowed in the horizon of our clinical work, and too infrequently do we stop to consider those broad principles of medicine which should be utilized in the management of every case. There are many workers today in the field of rhinology who would have us treat the nasal cavities as we would a mathematical proposition—to be governed by fixed and invariable rules for treatment. They would teach the student of medicine that there must be a fixed diameter of these cavities, to be made so if necessary, by wholesale destruction of tissue. They seem to forget that the divine Creator never made a perfect man, and we might say perfectly proportioned nasal cavities.

This aggressive treatment of nasal diseases is much to be deplored. I mean by aggressive, such things as the too frequent use of the electro-cautery, the operative intervention in every anomaly which prevents the nasal chambers from being mathematically correct in their proportions, and last, but not least, the daily use of sprays, which is unscientific and the producer of an exceedingly pernicious habit. In a recent address, Dr. Chas. H. Knight, of New York, has most happily expressed my own views on this important subject. He says: "In consequence of this rhinological enthusiasm, the nose has been looked upon as a probable source of every human ill, and a ruthless slaughter of intra-nasal structures, without regard to their physiological functions, has been universally practiced. Happily a saner view is coming to prevail, and the belief is growing that epilepsy, asthma, dysmenorrhoea and arthritis of the knee may have other causes than a hysterogenic zone or a point of pressure within the nasal fossae."

Grand Opera House.

Puerperal Eclampsia.*

By J. A. Hayne, M. D., Blackstock, S. C.

Mr. President and gentlemen of the South Carolina Medical Association: It is with great diffidence that I rise to present this paper for your attention. Never before have I inflicted upon a long-suffering medical audience my views on any subject and I claim for this paper neither originality nor novelty. It is a subject however that should be of great interest to each and every one of us, for it does not treat of a rare disease, one only seen by a favored few in the wards of large hospitals but is one that I venture to say that every general practioner present has been confronted with sometime in his daily routine business. One can never forget the horror of the scene, perhaps it was the fair bride of a year who, when everything seemed to be doing well suddenly developed this dreadful malady. Who can deseribe the change that comes over that scene. The lovely face distorted by the spasms, the graceful form stiffened in horrible contortions. The husband distracted and the physician implored to save the life of the sufferer. This is the picture, what are we to do to prevent its occurrence and should it occur, what shall we do to avert the tragedy impending. The life of the mother and child depend upon our knowledge and our skill. The general practioner, the rank and

* Read before the South Carolina Medical Association at Darlington, S. C.

file of the profession, those who are not literally carving their way to name and fame by operations with long names that mean little when translated into the vernacular and which to criticise with moderation are not always necessary, has too long allowed himself to be elbowed aside by the brazen affrontery of the year before last graduate who has, by the grace of a year spent idling at some hospital, taken upon himself the proud title of a specialist. The specialist should be a gifted physician with a thorough knowledge of all branches, one that by years of experience has found himself more successful in one branch than in all the others and hence fitted to specialize. How many specialists can properly claim this privilege?

But this is off the subject and I will briefly read what I have to say about Puerperal Eclampsia. To start right let us define it. Puerperal Eclampsia is the name given to convulsions occurring before, during, or after labor brought about by certain toxic elements circulating in the blood derived from either the mother's or the foetus in utero. It is an auto toxaemia due to the non-elimination of toxic elements through the proper channels. It is characterized by tonic and clonic convulsions followed by coma more or less profound.

Clinical History.—The premonitory symptoms vary but I will endeavor to enumerate them in the order of their importance. Urinary changes, such as the presence of Albumen, Acetone Indican and the falling off in the amount of urea excreted, presence of the aromatic sulphates, Oedema especially of the face and labia majora, Arnaurosis and Amblyopia, Dizziness, Migraine Neausea, Diarrhoea and sometimes obstinate constipation, etc.

The presence of Indican in large quantities is said to be an unfailing sign of approaching convulsions. The Attack.—The physician is often lulled into a false security by the fact that the convulsion is often preceded by a complete cessation of the labor pains, the patient seems to be sinking to sleep and all seems well. He may however notice a slight contraction of the obicularis oris as if patient were smiling, the eyelids open and shut, the eyes are fixed and staring, the twitching of all muscles soon becomes pronounced, the respiratory muscles are in tetonic contraction and the body assumes the opisthotonous position. The skin bathed in a cold clammy sweat, the pulse feeble, rapid and intermittent. The convulsion does not generally last more than thirty seconds as death would ensue from carbonic acid poisoning from the complete stopping of respiration. After the convulsion coma lasting from an hour to half a day. But one convulsion may follow another in rapid succession reaching sometimes the appalling number of one hundred and forty in a day. Should the patient recover consciousness she will remember nothing of the perils through which she has passed but will complain of headache and soreness of muscles. It is said by some observers that acetone can be smelt on the breath of patient during attack but in the eight cases I have had the misfortune to attend I could not detect such odor though I was on the outlook for it as I believe Acetone to have more to do with this condition than urea. The patient can usually be roused after the first convulsion but after each succeeding attack falls into a deeper and deeper stupor. The urine is found with rare exceptions loaded with albumen, casts and sometimes red blood corpuscles. The physician should remember that post partem hemorrhages and puerperal septicaemia are frequent sequelae and sometimes acute mamia . Prognosis.—The death rate has been as high as 50 per cent. Lusk gives 42 per cent, but some of the more modern writers give 13 per cent. Those, however, who give this last low death rate only cite 25 or 30 cases and like myself their death rate can hardly be taken as a fair criterion. I will report later eight cases with only one death but do not claim that my treatment is different from or surpasses any other Of course the prognosis depends upon the number and severity of the attacks and upon the sequelae mentioned, viz., Post partem Hemorrhage, Septicaemia and the setting up of a chronic nephritis. Actiolgy.—In my definition I gave the cause faulty elimination, but of what is the question. Modern writers say renal insufficiency and this like charity covers a multitude of sins. Post-mortems and clinical experience have shown perfectly healthy kidneys, but on the other hand the experience of the majority is that an interstitial nephritis can generally be demonstrated. Clark and Skelton in the American Journal of Obstetrics for February 1897 gave a most able article on the Aetiology of this disease, claiming that it is due to the presence of Acetone in the blood and proving that it is undoubtedly sometimes the cause and accounting thus for the beneficial effect of cholagogue purgatives in the treatment and prevention of the disease. One thing is certain, that the disease is more common in primipera than in multipara in twin pregnancies than in single and that this would go to show the presence of a toxine in the blood that multipara become immune to in a certain sense. This disease as have all others to which our sinful flesh is heir, has been ascribed to those horrible little monsters, the bacteria and one has been discovered for Puerperal Eclampsia. Koch's circuit of course shown but some other bacterialogist steps in shows the bacteria to be the Protens Vulgaris, whatever that may be. American authors have been content to accept renal insufficiency as explaining everything and have not made proper research as to Acetone and the part it bears as an aetiological factor. Whatever is the true cause we as practitioners only want to know this, how to remove that cause and as all agree that faulty elimination is the cause then our treatment must be to help to eliminate the circulating poison. Pressure of the foetal head upon the ureters, stretching of

the nerves about the cervix, too many red corpuscles in the maternal blood are theories that have all had their advocates. I myself am much in doubt as to the true actiology and would like to hear from some of my co-laborers in the field of obstetrics to give their views on the subject. In passing I would say brother general practitioners that at a recent meeting of a medical association I found that the surgeons were more and more encroaching upon the field they had left to us, that I felt constrained to rise and enquire what was the status of the general man of medicine who did not own a sanctorium with the accent on the o, or speak of appendicitis with the accent on the long i, and was told by a distinguished young surgeon present who came endowed with both these necessary qualifications, that we were "obstetrical specialists." So as such lets discuss the treatment of Puerperal Eclampsia. Treatment.—This naturally divides itself into three divisions, viz: Prophylactis, During Attack, After treatment of sequelae.

1st. Prophylactic.—Examine your pregnant patient's urine systematically for at least a month before expected confinement, do not be content to look for albumen alone, but find the amount of solids excreted daily; the amount of urea, find out if Acetone is present. If thmere is too much Indican or aromatic sulphate, instruct your patients as to the necessity of healthy bowel movement, see that their skin is kept in a healthy condition. Diet them if there seems to be failure to eliminate properly. Make them avoid too exclusive a meat diet, give them fruits, milk and plenty of water to flush out the waste material. Make them take open air exercise and avoid corsets and other abominations. Warm vapor baths should make the skin play its part in elimination. Quiet and the avoidance of nervous shocks should be enjoined upon patient.

Treatment during convulsion.—The first thought of the physician should be to prevent the convulsion from lasting too long, a cork having been placed in the angle of the jaws to prevent the tongue being bitten chloroform by inhalation should be given until muscles relax. Morphine and atropine hypodermatically to allay cerebro-spinal excitement. Rectal injection of chloral hydrate 15 grains to 30 grains should give breathing time then a drop of croton oil on the tongue if patient can't swallow or the passage of a stomach tube and epsom salts given. Saline injections of from a pint to three pints of salt solution with a Potain trocar either under the breast or in the abdominal wall. This saline injection sometimes works wonders and helps the elimination of the toxines. If pulse is full and bounding veratrum viride may be given but I am opposed to its use it having done more harm than good in my limited experience. I prefer bleeding for same condition then using normal salt solution. Pilocarpine if heart can stand it. The hot pack or hot vapor bath are both excellent in hospital practice but hard to administer in an emergency like this in private practice. Bear in mind what you are trying to do which as I understand it is to allay excessive irritation of the cerebro-spinal system and second to remove the cause of the irritation. The first indication is met by the chloroform, chloral, morphine and atropine. The second by evacuating the bowels, flushing the kidneys, and causing the skin to act. In giving the saline infusion a small quantity of acetate of sodium or bicarbonate of potassium should be added.

If the convulsion should occur before term or when it is not dilated all means should be tried before premature labor is induced but if these means fail then the child should be delivered as rapidly as possible. Should they occur in labor the os should be rapidly dilated, forceps applied and child delivered. A moderate amount of hemorrhage does good and one should not be too prompt in checking the flow.

Treatment of Sequelae and after treatment of patient.—The sequellae should be guarded against by rigid antisepsis, a warm bath in salt solution after labor is completed and absolute quiet in a dark room enjoined. The treatment of convulsions occurring after confinement are harder to control and if persistent it should be remembered that Edebohl's operation for the decapsulation of the kidney has given sucess in his hands in several of these cases and might do so in some of our South Carolina surgeon's hands.

I wish to report eight cases, seven white and one colored, all primipana. Two had convulsions before labor pains commenced. Five after labor was well advanced and one after baby and placenta had been delivered. I report seven recoveries, one death, colored, from septicaemia dying two weeks after last convulsion. One patient had twenty convulsions, the others from 1 to 10.

Thanking the association for their attention and apologizing for its shortcomings I ask for a free discussion that I may obtain light from the experiences of my brother "Obstetrical Specialists."

How to Make Thin People Fat, or How to Make Weak People Strong.*

By John C. McAfee, A. B., M. D., Macon, Ga.

Mr. President, Gentlemen of the Association:

It is a matter of some amusement, as well as serious concern, to note the tendency on the part of specialists in the practice of medicine to see all pathological conditions incident to man, and woman as well, through, and as directly connected with, those portions of anatomy that they each severally consider as their own legitimate prey. The nose and throat man sees pathology "per os," the gynecologist "per vaginam", etc., while some general practitioners turn the kaleidoscope of pathology rapidly in their effort to obtain a view from all points, with the result that each and every view to them is more or less blurred and indistinct,

*Read before the Medical Association of Georgia, April 22, 1904.

with a definite comprehensible view of but little, setting themselves at considerable disadavntage for coping with any specialist in his special field. Specialism is right and proper, and, when properly pursued by capable men, is productive of good to all concerned. This is our common observation. The above remark is made with due respect to the general practitioner, for, in spite of the many criticisms he must endure, the distinction must be accorded him of possessing a better all-round knowledge of the practice of medicine than any one among us, and yet we all know that to master all the branches of medicine and surgery is, for a single mind, an impossibility. One of the greatest dangers of specialism, on the contrary, is, that a man in any special work may, in the concentration of his efforts and energies on particular points, permit his knowledge of the general field, which is so necessary to the correct application of specialism, to suffer pari passu.

The various organs of the body have been divided into groups and sub-groups, from a pathologic standpoint, and the management and treatment of the diseases affecting the several organs of these groups constitute what we term specialties. In every division of practice, that is, in every specialty, there is plenty of work to be done and the requirement of the public in any special field may be summed up in two words—competent man. Southern practitioners have laid hold of special work in a way that is both commendable and liberal, and the distinction achieved by them in nose and throat work, gynecology, skin, genito-urinary, etc., has been such as to arouse our honest pride, and their prospects grow richer and brighter and better with the passing of the years. Indeed, a feeling of comfort comes to us with the thought that we have easy access to men whom we can safely trust with a suppurating mastoid, or to remove an intra-laryngeal papilloma, or who are skillful in the aplication of electro-therapeutics; but in the fields of specialism, there is one that has been most ungenerously overlooked by the southern profession, viz: the field embracing the digestive apparatus, the stomach and intestines, and on the point of this neglect we hereby enter our vigorous protest. This brings us to the point of consideration of our subject. Why are thin people thin, and why are weak people weak? There is a vast army of our population propounding these questions to us, and they have as much right to be answered truthfully as any who come to our doors. It is much to our interest to be able, after carefully investigating their cases, to answer them truthfully, and more to our interest to be able to treat them properly.

My aim in writing this paper is, to have a plain talk with the family doctor about a series of cases that are extremely common, are of serious import, and are, as a rule, about the most difficult cases coming to him to treat with results satisfactory to doctor and patient. These cases are the ones that come complaining of "general debility," "all run down," "no appetite," "coated tongues," more or less, "sleep badly," "constipated," saying, "doctor, I am ten, fifteen, or twenty-five pounds," as the case may be, "off from my usual weight, now what is the matter with me?" Of course, we are not referring here to cases following such diseases as typhoid, pneumonia, pleurisy, or any disease where the cause is evident; neither are we referring to cases of tuberculosis, or chronic nephritis, or any condition of a nature well understood by general practitions of experience and acumen, but the cases where the patients are enveloped in languor and malais, are weak and thin, and yet where the closest physical examination reveals nothing special to account for this "general debility" so to speak, further than probably a haemic murmur. These patients get tired easily, awake in the morning feeling but little refreshed, if any, from the night's sleep, and have no appetite for breakfast, and very little for any other meal. Occasionally there is more or less soreness to pressure in the region of the epigastrium, and very many of these patients complain of frequent nausea, with occasional vomiting, and nearly all of them complain of an unpleasant feeling of fullness after even a light meal. Some also, have erratic neuralgias. When this picture is presented to you, you are face to face with a bad stomach, and, while no one has a monopoly on the management and treatment of such a case, unless you possess the requisite skill and training to successfully cope with the offending member, after probably weeks, and maybe months, of empirical effort on your part, you will feel somewhat relieved to note that your patient no longer comes to be prescribed for, and will probably congratulate yourself upon the belief, half doubtfully, that your last prescription routed the enemy, but some one else is now trying to solve your proposition; your patient, under some friend's advice, has concluded to try "Dr. Blank," and see if he can do him any good, or has possibly gone north to consult "Prof. Diognosis," to see if his very "obscure" case can be fathomed.

The above picture is an unusually plain one of gastric abnormality, or pathology, but I have seen plainer ones overlooked. Sometimes the patient will come complaining of not a single symptom pointing to the stomach, and opposed to the idea that he has indigestion in any form, but I make the assertion without fear of successful contradiction, that other definite pathologic conditions being excluded, his very thinness is pathognomonic in every case. Show me a thin man, or woman, excluding other special pathology, and I'll show you a man, or woman, whose stomach functioning is subnormal. I will also show you a man, or woman, who, barring the presence of cancer or gastric tuberculosis, can be markedly improved and many of them can be restored to comparatively good health. I know whereof I speak, and if any gentleman in this august assembly have doubts, I will be pleased to show him some cases. So much for general observations. I wish now to say, contrary to the belief of

some, that the human stomach is susceptible to disease. Some seem to think that it is not. Our object in this paper is to draw pointed attention to the fact that gastric pathology is not only an entity per se, but one of the very commonest affections among our clientele, that haphazard diognosis and haphazard treatment is not more effective in this branch than in any other, but on the contrary much less so, as nearly all other ailments to which flesh is heir tend to spontaneous recovery, while gastritis, in its various forms, has no such tendency, but on the contrary tends to aggress, and grow worse. A case of ordinary gastric catarrh begins by hyperaemia, brought about by some irritant, often unknown to the patient, and in this stage stomach symptoms are not necessarily present, though in a nervous individual they may be. This hyperaemia becomes chronic and intensified until the stage of subacute inflammation is reached, and then, most likely, the patient begins to have symptoms; malais, failing appetite, languor, some tenderness about the epigastrium, slight elevation of temperature and pulse may be present, or may not, sleep may not be much disturbed as yet, and the family doctor probably does not see the case until some indiscretion precipitates an attack of acute gastritis, with symptoms recognizable by even a tyro, and after a short space of treatment the case is unusually discharged for well; but the patient's appetite and well-feeling does not come back as he expected, and the case progresses to the stage of chronic gastritic of some form, either mucous, glandular, hypertrophic, etc., but even as truly as all roads led to Rome do all these forms of chronic gastritis lead eventually, if not intercepted by proper treatment, to gastric glandular atrophy, with muscular atony, muscular incompetency, probably folowed by more or less dilation, and then it is that the case drifts from doctor unto doctor, and finally comes to the conclusion that "doctors are not much good, any way." Medicines will do this patient no good, unless accompanied by the proper accessory local treatment, and the sooner you reach this conslusion the sooner will your reputation be spared sundry knocks and stigmas because you do not do something that is impossible, viz: cure this patient by dosing him with drugs. By far the greater number of cases of chronic gastritis do not develop by such a regular perceptible course as above described, but come on in an almost symptomless manner, and the patient is unaware that anything special is wrong with his anatomy, til he finds himself in a state commonly described by the laity as "general debility." The term "general debility" is fairly well chosen for it gives a pretty accurate idea of the patient's feeling, and serves notice on the physician that something is wrong. It is then his duty and privilege to discover the wrong and apply the proper remedial agents. As already mentioned, these patients are always below their normal weight, and in proportion as this condition is present, these are the ones our title designates as thin people. All thin people, and all weak people, whose conditions are not brought about by discoverable acute or chronic disease, are sufferers from subnormal gastric digeston, and this is the cause of their thinness and weakness, and can be easily demonstrated by an analysis of their stomach juices.

Now, what shall we do with this little army of people who desire to be made well? Make a careful physical examination of them, including urinary, and no special lesion is found. Next, give them a properly selected test-meal, and at the proper period draw this meal and analyze it, and we will find the trouble: the stomach secretions will be found to be 5, 10, 30 or 50 per cent. only of the normal quantitative secretions of a healthy stomach. Next we may find a gastroptosis, with prolapse of kidney and intestines (splanchnoptosis), or we may find a dilated stomach, with indolent atonic muscular walls. We are not here considering malignant or tubercular disease. On lavage we may also find that the stomach contains large quantities of mucus. Now, we have narrowed our case down, in this thin, weak patient, to what it really is, one of chronic gastritis.

Prognosis: The case has no tendency to spontaneous recovery. With the proper means of treatment, conscientiously applied, with proper regulation of the dietary, according to his stomach's digesting capacity at that time, the prognosis is good in nearly every case.

Treatment: In this brief paper we can only mention the means of treatment at our disposal, and the selection and adaptation must rest largely with the attending physician. Drugs alone are almost of no use. The cases of dilatation, with gastroptosis, and splanchnoptosis, will be so benefited by a properly fitting abdominal supporter that you cannot afford to dispense with this accessory to the treatment. Once patients have them properly adjusted, they are unwilling to go without them. The secret is in the proper fit. The supporter must really support the viscera, and also be comfortable. Next is gastric lavage, for the triple purpose of ridding the stomach of offending, fermenting decomposing debris, of stimulating gastric secretion, and the toning up, by the massage it gives, of a weak atonic muscular wall. In lavage properly medicated solutions can be used, and should be used. Intragastric spraying with stimulating medicinals is of value in selected cases, just as medicated sprays are of value in pharyngeal and laryngeal troubles; rightly used the spary is a beneficial remedial agent, and must be at hand, for some of our cases have to have it. Also, of very great importance is the use of electricity, faradic and galvanic. Its value is known and appreciated only by the practitioner who uses it faithfully and for a sufficient length of time, and as a muscle and nerve tonic I am persuaded that its usefulness is unappreciated by the profession at large. It can be used both intragastiric and extragastric, and some cases will show a more rapid and marked improvement with the

intragastric use of it. Drugs are of minor import, and of value only as an adjunct to the other methods of treatment. The drugs of most value being strychnia and the bitter tonics, but they are practically inert in a dirty, foul, decomposing residue in a dilated, slothful stomach. Pure olive oil is of much benefit as an adjunct to the dietary, and Hemmeter uses it by hypodermic injection.

Concluding, I will say that our thin, weak patients are suffering with definite discoverable lesions; that these lesions are amenable to treatment, resulting, in most cases, in a restoration to comparative health and vigor; that they should make a comfortable gain in weight, and that when we do not so restore them, in the majority of cases, we are depriving them of their just rights at our hands, and diminishing our reputation as physicians, and are culpable, more or less, in both instances.

The Simplest and Best Leg Holder—The Simplest and Best Anaesthetic Dropper.

By T. M. McIntosh, M. D., Thomasville, Ga.

Take a strip of ordinary cotton goods, three yards long and from three to four inches winde, tie the ends together, then cross them in the center, thus making a figure of eight shape. Put one arm through each of the ends of the figure of eight, put the central part, where the strips are crossed, over the head and behind the shoulders. Now take two more strips of cloth, each two yards long, and tie below each knee, so that one end will be short and the other end long. Now take the long end of the leg strip and pass it through the loop of the figure of eight (which is just under the arm-pit) and bring it down and tie it to the short end of the leg strip; this is done on both sides. This done, you can, by tying the leg strips short or long, have a lithotomy position, or this exaggerated, by flexing the thighs well on the abdomen. The shoulder straps will not slip, will not pull sideways, will be perfectly comfortable, will be better than any leg holder that was ever yet shown in any instrument catalogue.

If one desire, two ordinary iron rings can be put in the shoulder strips before tying the ends together, like the keys in a key-ring, and when desired to be used, the rings can be pulled out, one at each end of the shoulder strips, before crossing same in the center to make the figure of eight, thus having a ring under each arm through which the long end of the leg strap will be passed when in use.

The writer has used a leg holder similar to this, made of leather throughout, for some years in his hospital operations, and having to do a currettage for retained membranes after abortion with hemorrhage, in the country, and forgetting his hospital leg holder, improvised this one with strips of a sheet, and found it much better than the leather one.

If it is desired to keep the knees separated and stationary, tie a small round stick (on the anterior or shin side of the legs) to the strips tied on the legs.

The writer is led to describe this because the instrument catalogues and text-books have wood cuts of different designs for leg holders, some of which are somewhat expensive (which the writer has bought), and none of them effective, thus showing a want for leg holders by the profession, and because the above can be made in a few minutes anywhere, and will place within the reach of all the best leg holder ever used and at no cost. So much for the leg holder.

Being called by telegram to operate, there was need to hurry to catch the train, and this caused the glass and grooved stoppered drop bottle to be ovedlooked, which the writer uses for dropping chloroform, on the Esmarchs Inhaler (drop by drop and slow or fast, as the dose is required to be more or less).

As the writer believes that the cone-shaped folded towel or newspaper, in which a handkerchief is placed, on which to pour the anaesthetic, should never under any circumstances be used, he was at a loss. But a two-ounce vial with an ordinary cork stopper was on the mantel, so two small grooves were cut from end to end, on opposite sides of the cork stopper, and thus was made the best and simplest anaesthetic dropper, one groove being the inlet for air, the other the outlet for the chloroform. The size of the grooves can be changed by pushing the stopper in deeper, thus narrowing it, or drawing the stopper out and enlarging the grooves.

The above is descriptive of two ver simple things, and many of my colleagues may have used them both, but it is presumable that some do not know of them, and to them these two little contrivances will be of as much service and satisfaction as they have been to the writer.

Intestinal Obstruction.*

By C. T. Nolan, M. D., Marietta, Ga.....

More properly speaking, the title of this paper should be "The Necessity for an Early Operation in Mechanical Intestinal Obstruction."

It seems to me that the average physician's treatment of intestinal obstruction is more deficient than any other affection with which he comes in contact.

It is not my purpose to go into the details of the etiology and pathology of mechanical intestinal obstruction, for, from a practical standpoint, it makes very little difference whether the obstruction is caused by intussusception, volvulus, omental bands, pseudo ligaments, hernia, the appendix, Meckel's diverticulum or gall stones.

I believe there are very few diagnosticians who are able to make anything like a positive diagnosis, differentiating these affections. In fact, it makes no difference whether one

*Read before the Georgia State Medical Association, at Macon, Ga.

knows with which variety he is dealing, because, if there is a mechanical obstruction, he must resort to an operation early if he expects anything like a good per cent. of his patients to recover. And, what I mean by early operation is from twenty-four to forty-eight hours, certainly not more than seventy-two hours from the beginning of the attack.

The mortality following operations for obstruction has been, and is still, frightful, but it certainly has been lessened of later years when the operation has been performed early.

It takes a certain amount of courage on the part of the surgeon to announce to his patient who has been sick, say only twenty-four hours, with obstruction, and who is not, at the time, desperately ill, that laperotomy must be performed. But, if one is reasonably sure of his diagnosis, this is certainly the proper time to insist upon an operation, for, if he temporize, say three or four days, in all probability irreparable injury will have been done the bowel itself so that the outcome of an operation will be, indeed, doubtful.

But, if the operation be performed within the first twenty-four hours, or, at longest, within the first forty-eight hours from the beginning of the attack, the surgeon can promise his patient that his chances for recovery are fairly good.

When the obstruction is mechanical it is time worse than wasted to be giving these patients purgatives, which can do no good, but, on the contrary, are positively harmful, and enemata of warm water, which cannot be forced beyond the ileo-caecal valve without doing harm to the bowel. Nicholas Senn, in his experiments, has demonstrated that it is dangerous to use sufficient force to pass water beyond this valve. And yet we see physicians, intelligent physicians, who will persist in this line of treatment day after day until six, seven, eight and nine days pass, if the patient is so unfortunate as to live that long, "hoping against hope" that he may be able to get his oil and other purgatives, which are promptly vomited, to pass by the obstruction —or that his enema will work some miracle and cause the bowels to move.

When all these have failed, as a last resort, after he has done all in his power (?), he calls in a surgeon, who promptly sees from the greatly distended abdomen, anxious look, cold, clammy skin, weak, fast pulse, that the case is almost hopeless, but that there may be one chance in a thousand; and, out of the good ness of his heart, he performs laparotomy and the patient dies.

No man is free from mistakes, but I believe that the diagnosis of mechanical intestinal obstruction can be made with as much certainty as the diagnosis of appendicitis, tubal pregnancy, or any other acute abdominal affection.

When a patient is seized with colicky and often intermittent pains in the abdomen, and vomiting greenish bile-stained fluid, later a brownish black liquid with a distinct fecal odor, absolute constipation and failure to pass gas, skin cold and clammy, temperature subnormal, anxious expression, weak, fast pulse, and if this condition last for twenty-four hours and does not yield to ordinary means, such as enemata and oil, one may be reasonably sure that he has mechanical intestinal obstruction, and should seriously consider the necessity of an operation, which, if not performed at this time, should certainly not be delayed over forty-eight hours.

Says Nicholas Senn: "True intestinal obstruction, whatever its cause may be, is as strictly a surgical affection as strangulated hernia, and remediable only by the same kind of surgical treatment. Physicians should recognize this fact and call a surgeon into counsel as soon as a probable diagnosis of mechanical intestinal obstruction can be made. To let a patient die of the consequences of a removable cause of obstruction without an operation is a reflection upon the advances of modern aggressive surgery. And, that the time will come, and is not far distant, when as much blame will be attached to a surgeon who will look on as an idle spectator at the bedside of a patient whose life is in danger from intestinal obstruction as now falls upon the obstetrician who permits a parturient woman to die undelivered."

Abdominal surgery of today is so simple and free from danger when properly done that should one make a mistake in his diagnosis and open an abdomen that did not have a mechanical obstruction, the mistake, in all probability, would not terminate disastrously if performed early in the trouble.

Personally, I have had no experience with inflations of gas or air, but it seems that not a very high value has been placed upon them by those who have used them most, except, possibly, in cases of intussusception. The consensus of opinion is that they are of doubtful utility, and certainly, if used at all, only a few hours should be wasted in their use.

My experience with obstruction of the bowel has been limited to five cases:

First. On February 16, 1901, I was called to see R. M., age 14, who had been ill for three days, but had had no physician. There was complete stoppage of the bowels; abdomen greatly distended; rapid and feeble pulse; subnormal temperature. His parents had given him purgatives and enemata, but there had been failure to pass either fecal matter or gas. I was satisfied that he had a mechanical obstruction, and advised an immediate operation, but it was declined by his parents. I made him as comfortable as possible with hypodermic injections of morphine. He died on the morning of the 19th. After some persuasion, his father gave consent for an autopsy. An omental band was found a few inches above the appendix wrapped tightly around the bowel, and as completely closing the canal as if a string had been tied around it. The appendix contained a small amount of pus, and, of course, there was a general peritonitis.

(By way of parenthesis, I will say that we should hold more post mortem examinations,

as they not only give us valuable information, but they educate the community as well.)

CaseII. March 5, 1901, I was called to see N. L. B., male, 2½ years old. He was suffering with the usual symptoms of obstruction. I saw him about two or three hours after the beginning of the attack. He was given purgatives and enemata, but they failed to result in the patient's passing either foecal matter or gas.

The next evening we had Dr. G. Tennent, of Marietta, Ga., in consultation. We decided that an operation should be performed at once. In furtherance of this diagnosis, Dr. Floyd W. McRae, of Atlanta, Ga., was called in consultation He agreed with Dr. Tennent and myself, and he himself did the operating. A volvulus was found in the bowel of the patient which was the cause of the obstruction. The bowel above this obstruction was greatly distended, and collapsed below. The appendix was removed and was found to be slightly diseased.

This operation was performed about forty-eight hours after the beginning of the attack. The bowels moved about three or four hours after the operation. The child rallied from the operation and made a good recovery. But had the operation been delayed two or three days, no doubt the child would have died, with or without the operation.

Case III. On December 13, 1901, I was called in consultation to see Miss L. B. L., age 19. She gave a history of having been in poor health for one month. On December 6th she was taken suddenly ill with pain in her right side. The pains were intermittent and colicky in character. She vomited, and was unable to get her bowels to act. These symptoms grew worse from day to day until I saw her on the 13th. At this time her temperature was 101 degrees, pulse 120. Abdomen greatly distended, stercoraceous vomiting, and she was greatly distressed with an uncontrollable hiccough. At this time she had been suffering seven days. I operated and found a volvulus in the small bowel and general peritonitis. A few hours after the operation her bowels acted freely and continued to move two or three times a day until the morning of the thrid day after the operation, at which time she died.

Case IV. On May 16, 1903, I was called in consultation to see an infant nine months old. This child had been suffering with obstruction for six days. We decided to operate early next morning, but the child died before the appointed hour for the operation. We held a post mortem examination and found an intussusception of about six inches at the ileo-caecal valve.

Case V. I was called in consultation to see Mrs. L. C. P., age 40, on the afternoon of February 23, 1904. She was seized with colicky pains in the abdomen at noon on the 21st, two days before. She had been vomiting the contents of her bowel, and was unable to get a movement from the bowels or to pass gas. The failure to pass gas is a symptom of great diagnostic value in these cases. Her skin was cold and her pulse was only 100; no tympanites. I operated upon this patient at 10 o'clock that night, fifty-eight hours after the beginning of the attack. I found the obstruction caused by a pseudo ligament which was passed around three folds of the bowels, completely closing the canal. The usual distension above the obstruction and the usual condition of collapse below were found. A few hours after the operation gas was passed freely, but the bowels did not move until the fourth day. The incision healed by primary union, and her temperature did not go above 99. Her recovery was uneventful.

It will be noticed that the two cases that received the benefit of an early operation recovered; the one in which the operation was delayed until the eighth day failed to recover, as did also the two in which no operation was performed. As stated above, too much improtance cannot be attached to a proper diagnosis, but when the physician is reasonably sure that the obstruction is mechanical, the necessity for operation is apparent and should not be delayed for an hour; because, when the intestine is twisted, telescoped or bound down by bands of adhesion, the circulation in the affected part is greatly diminished if not completely shut off, and gangrene is the inevitable result, and death is the logical sequence.

Pneumonia as Influenced by Senility and Alcoholism.*

By J. E. New, Dexter, Ga.

In this short paper I shall not attempt to speak of all of the modifications in the course of a pneumonia which might be due to old age or strong drink. I am sure there is not a physician in this house who would not easily recognize a typical lobar pneumonia, and you are all familiar with a detailed description of its course and the most approved methods of treatment. But very old people and hard drinkers may present you with a case of something some day that will baffle your skill if you have not studied this class of cases carefully, and after the cause of death has been assigned to general senility on your death certificate, you will be surprised to know that you did not recognize a case of pneumonia until the chest was opened on the autopsy table. And while the mortality rate in hospitals is very much higher than in private practice, I think this is accounted for in two ways:

(1) In private practice, and especially country patients, ventilation is better than the crowded wards of a hospital.

(2) As these statistics are collected from the large cities, often from the public charity and prison institutions, they naturally include a greater number of old people and drunkards than you would get in the country of from private practice.

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*Read before the recent meeting of the Georgia State Medical Association, at Macon, Ga.

Most of these very old people appear extremely ill from the beginning, frequently the onset is sudden, sometimes with a chill followed by a high temperature, and is very typical of pneumonia. Usually, however, there is a history of chronic brochitis preceding it, with no chill; the temperature is slightly elevated and irregular, and I have seen many cases where the temperature remained normal or very nearly so throughout the disease, though a low temperature does not mean a favorable prognosis, by any means. Indeed, the prognosis is rarely good in this class of cases, but there can be no reasonable prediction as to how long they will live. Some of them who appear very sick get well, while others whose chances seem fairly good die early. I remember one case who died the day after admittance to the hospital, with a temperature slightly above normal, and the autopsy revealed a consolidation of the right lung with nearly a quart of sero-purulent fluid in the plura of the same side, didived into three sacks and was evidently of many days duration. This patient was walking about before admittance, and I am sure no one would have thought he was carrying a consolidated lung and a quart of fluid in his chest walls. I have intimated that the diagnosis is often difficult, and for the fact that all the organs have undergone senile changes, and most if not all the pathognomonic symptoms are absent. There is often no chill nor subsequent temperature, and the bad breathing can frequently be accounted bor by the existence of emphysemia asthma or other bronchial troubles.

The physical examination is unsatisfactory in many cases and often misleading. The patient is emaciated, the shape of the chest has undergone senile changes, the lungs are emphysematous or contracted away from the ches, wall, so that your observations and tests for expansion, as well as percussion, are often of no service, while the confusion of sound on auscultation are that of all manner of heart murmurs, bronchitis, asthma, emphysemia, degenerated changes, weak breathing and probably pneumonia, if you are sufficiently skilled to discriminate.

The microscope is apt to show great numbers of staphlococci and streptococci, while the diplocococi of pneumoniae are absent. I do not mean that the pneumococci are not the specific cause of lobar pneumonia, but I do say that, after straining and examinations, I could not always find them. Examinations of urine will usually show albumen from traces to a considerable amount, with epithelial casts. To illustrate some of the confusions which often confronts you, I will relate a case in detail:

Mrs. T. P., age 60: family history good. Personal history good with the exception that she had been a hard drinker for many years, though always enjoyed good health except ordinary diseases of childhood with perfect recoveries. Present illness began two months ago, notice slight loss in the use of left side including the extremities with hypersthetic condition of the skin gradually growing worse. When admitted here almost complete loss of motion in left hand and foot painful to the touch, no odema radial pulse could scarcely be found, rapid and intermitten, anorexia, nausia, constipation and distended abdomen considerable dyponea but no cynosis area of cardiac dullness increased a variety of rales heard on oucultations, urine scanty and muddy specific gravity 1024, traces of albumen. No sugar, triple phosphate chrystals.

The temperature curve is below 101, and for the most part normal or nearly so till the 11th day, then rose in the afternoon to 98.2. The pulse was never above 100 until the remissions and evening exacerbations until the 16th day and dies with a temperature of 98.1. The pulse was never above 100 until the 11th day, and only 112 the evening of her death. The respirations were 40 on the same day.

Now, gentlemen, I am sure you would be anxious for an autopsy in this case, I am also sure that you would not venture a positive diagnosis of pneumonia. The autopsy shows:

Body: Somewhat emaciated but fairly well nourished, rigormoris well marked.

Heart: Great dilation of right side, left hypertrophy, mitral valves admit three fingers, aortic valves thick and calcarious, pulmonary shows slight vegetation evidence of old pericarditis. Right lung dematous lower lobe bound down by adhesion, some water in plural cavity.

Left lung completely bound down be adhesions oedematous and lower lobe undergoing resolution.

Liver: Pale, cuts with great resistance, weight 41½ oz, capsules strips, abundant increase of conective tissue, two large and six small stones in gall bladder.

L. Kidney: Large and very pale, two epsts capsules strips easily, cortex thin, hyalin thick, chronic parenchymatous and interstitial nephritis.

R. Kidney: No cysts, otherwise the same.

Spleen: Very much enlarged.

Intestinan tract: Normal, also urinary organs and ureters.

In the above ease good many of the modifications of alcoholic old people are illustrated, but with reference to the temperature in these cases I have been especially inteerested. It does not sound scientific to speak of a pneumonia without an elevation of temperature. I have noticed in several instances the temperature curve showing only one elevation to 102 or 103, and remaining so for a short time only.

Eg. Peter L., age 72, history similar to preceding case, physical examination revealed consolidation . Temperature normal until the fifth day, rose then to 102.3, but fell below normal the following morning. There was no further rise of temperature, patient recovered. The pulse rate in this case range from 85 to 90 while the respirations were from 30 to 35.

I have a number of temperature charts of

old people and alcoholics which I have brought along, and will be glad to go over with any one who may care to see them, and while I have said that most of these cases died I do not mean that it is due to alcoholism but with its history we are obliged to believe that the changes in the liver, kidneys and circulatory system due to its abuse increased the mortality rate. But there is a class of dissipators who drink to intoxication almost daily, and are extremely susceptible to pneumonia; in these cases you will often wonder if you have pneumonia or delirium tremens (indeed you may have both). A man is pushed out of a saloon and kicked off the street unconscious, raging and shaking, the cop takes him to prison, the doc glances once prescribes D. T. Mixture, and the unfortunate dope dies on the second or third day of pneumonia. In such cases the stomach should be washed at first, and a general bath given as hot as can be borne, at the same time a hypodermic of Hyocine and soon after liquid nourishment should be given, as a re-establishment of the digestive functions seem to aid in quieting the patient.

Now, a physical examination can be made, and while this early you will probably get no signs of consolidation, still a careful comparison will generally reveal a change in the percussion note usuallly hyperesonant over what is going to be a consolidation.

In such cases as the above the circulation is relaxed, and the lungs admit of considerable ingorgement and extravisation into the parenchyma, and I am satisfied that death often results from asphyxia rather than heart failure. The fact that the heart if often weak and fails rapidly just before death is evident, and there is no doubt either that the toxins developed in the body exert and unfavorable and depressing effect upon that organ, but we have all seen a beginning delirium, anxious countenance with sponora and widely dilating nostrils while the heart's actions were yet good, and we all know too that a deficient aeriation of the blood is a precussor to evil.

Is it not probable that carbon dioxide poisoning exerts a depressing influence on the cardiac nerve centers, and other vital centers as well as the respiratory nerve centers? The cause of death is admitted to be asphyxia in many cases of dyphtheria and other diseases where the breathing is cut off, then why not in pneumonia where the supply of oxygen has been suddenly reduced and remained so for many days. If we admit that the capacity of the lungs is exactly right for the supplying of the tissues with oxygen during a healthy condition of the body then why would not a crippled lung with half the breathing space account for a depression of the heart and other vital organs? Again we have seen the cyanosis clear up consciousness return, breathing improve,, and the heart's action grow better under the administration of oxygen.

When a post mortem examination after death from pneumonia show dilitation of the right heart containing blood clots, the cause of death is written heart failure, but did this heart fail from carbon dioxite poisoning, from the toxins of pneumonia, or was it a general exhaustion from over-exertion due to these factors combined. The heart fails of course in every fatal disease, but the conditions developing with dissolution and attending death, should not be confounded with those producing it.

If the depression from carbon dioxide poisoning is an important factor in producing death then why not supplement this deficiency by adding more oxygen to the air they are breathing. This would seem rational since all authors admit that well-ventilated rooms are better for pneumonia patients than close compartments.

In reference to the abortive treatment of this disease I wish to say that large doses of digitalis, brisk catharties and vigorous counter irritations would seem rational, but the good result from such a course could only follow its early use during the stage of engorgement, when the diagnosis is often uncertain. And I would like to ask just here if any one has ever tried adrinolin in these cases, since its action on the heart and smaller arterioles would seem theoretically correct. But after a consolidation is established, the alveoli filled with corpuscles, pus cells, epithelium and clotted fibrin I do not see how we could expect or hope for abortive agent.

I have seen one case where the crisis came within a few hours after the accidental ingestion of a poisonous quantity of carbolic acid. This was an alcoholic subject and was not expected to live. In his delirium he drank the water in his spit cup containing 20 per cent. carbolic acid. The next day his urine was almost like ink, the patient had another slight rise of temperature, but finally recovered. If I thought the carbolic acid had anything to do with the crisis in this case, I should be slow to double the experiment until some one tells me how much carbolic acid is necessary to produce death.

In the treatment of pneumonia the late and much applauded remedy creasote carbonate seems to me of less value than was once thought. In some cases it appears to reduce the temperature, and exert a favorable influence on disease. My own experience were observations among patients of the same ward and on the whole those who took it did not seem to do better than the ones who did not.

This was among the alcoholics and old people, and perhaps not a fair test of its efficacy.

Rest.—In a typical and well-established case of pneumonia one of the greatest aids to treatment is rest. Your patient with a high temperature pain and restlessness, is also nervous and irritable. The breathing is much interfered with because of the above conditions as well as the reduced capacity of the lung itself. When the patient is raised in bed to receive water and medication, propped up for nourishment, allowed to sit on a chair while the bed is arranged, and always getting up to

deffications and urination instead of using the bed pan, you will find after returning to the recumbent position the heart actions have been accelerated to 10 or 20 additional beats per minute, and from 5 to 20 minutes (or longer if your patient is very weak) will be required for the heart to calm down and your patient to get back into a state of rest. These little occurrences will amount to at least 20 during the day and night. If the heart has made 40 extra pulsations at each exertion we have 800 in 24 hours or 6,400 in 8 days which brings us to the probable turning point, to this must be added the worry of talking and we finally have in the neighborhood of 10,000 heart beats wasted in the course of a pneumonia, if this unnecessary expenditure is reserved for the critical point it may be the means of carrying many patients over to the safe side. The patient has no breath to spare and never cares to talk while anxious and enquiring friends make their visits even more annoying by relating numerous deaths from this same trouble, and always precede their remarks with "How do you feel this morning?" "Do you feel any better now?" etc. Thus the first words produce a disgust and fear to the nervous patient who has been bored many times with similar enquiries, and now dread the conversation that is to follow.

Keep your patient quiet, allow no company, and prevent an exertion of the mind and body. They will do better, and while preserving the strength do not forget that it should be kept up by a systematical course of feeding to be established at the beginning. Allow plenty of fresh milk, meat juices, milk egg egg nog and other forms of liquid food every two hours through the day, and less often through the night, if the tempsrature is high combine an equal quantity of vicia with the milk to prevent curding, if the stomach fails resort to rectal alementation.

As I have already alluded to oxygen gas I will say here that I believe it to be one of the most rational remedies in certain cases, and should be used always when there are marked signs of deareriation. The amount and frequency to be governed by the degree of carbon doxide poisoning, and the effects produced by its administration.

When the crisis is ushered in by cyanosis, beginning delirium and general depressions you always fear the worst, but the judicious administration of this gas will in many instances give most gratifying results and tide the patient over the critical point. I shall not attempt to discuss the general treatment of his malady, but I would like to emphasize that the three things already mentioned, viz: rest, diet and oxygen gas are worthy of careful consideration in the treatment of pneumonia, therefore if you get a good bill of fare, a good nurse, and plenty of good air your patient will generally recover if you have neither the influences of sensility nor alcoholism.

EYESTRAIN.

The Importance of its Detention and Correction in all General Nervous Derangements.*

By Arthur G. Hobbs, M. D. of Atlanta, Ga.

It is not every man who is endowed with the special faculty of doing well surgical operations on the eyeball, or its muscular appendages, who can also do as well the refraction and muscular tests that oculists are daily called upon to do. The last; the correction of refractive errors and muscular ineo-ordinations, require a special capacity, often very distinct from the first. The one is suggestive of a mechanical turn of mind, presupposing of course a thorough knowledge of the anatomy, physiology, and pathology of the parts involved, together with an up-to-date knowledge of antiseptic methods in surgical operations. But it is quite another proposition, a mathematical and not a physical (a surgical) one, that is presented to the oculist, or it may be to the family physician first, when the patient's eyes reveal no apparent lesion; when all the symptoms are subjective and, as a rule, involve the general nervous system as a reflex result, with the eyes as the cause.

In such cases the other side of the consultant must be brought out, but unfortunately, when his mechanical or surgical side predominates, he is more than likely, in spite of himself, to look first for a surgical, and not for a refractive or a mathematical solution of the problem.

The mathematical mind, with an optical training, will as naturally look first to the other side, to see if the desired result cannot be better reached without surgical intervention. That is, by correcting the refractive error, which is probably slight, and at the asme time, and with the same lenses correct the muscular incordination, which is usually the complication, when general nervous symptoms are prominent. Hence in eyestrain with its systemic reflexes we must not lose sight of the fact that in each case a choice must be made between one or the other means, yet possibly we may have to resort to both in some cases. But in no case can we afford to forget our own predilections (and the most of us have them) if we would consult our patient's good.

For example: I am personally convinced that "heterophoria," a term applied to slight muscular ineo-ordination, can and should be, in most cases, corrected either by a-centering or de-centering the lenses that nentralize the accompanying refraction error, or hy adding to them the necessary prisms. I mean, of course, in those cases where the muscular aberation is so slight as to suggest only the partial clipping of one of the seven pairs of muscles that govern the movements of the eyeballs. It is usually only one, but possibly both of the internal recti muscles.

*Rear before the recent meeting of the Georgia State Medical Society of Macon, Ga.

As some lens, either a refractive or a prismatic, is as a rule, prescribed even after partial tenotomies for the correction of eyestrain, why should it not be done from the mathematical standpoint at first, when the refraction or muscular deviation is slight?

I have done these partial tenotomies a limited number of times though probably not as adroitly as my friend Dr. Stevens of New York has done his many.

I have also seen Landolt of Paris manage these cases in his private clinics almost exclusively from the refractive standpoint.

On the other hand, Galezosky of Paris, in whose private clinic I have seen eyestrain under his direct management, has a tendency to surgery first, and afterwards the lens almost invariably. But Sir Anderson Critchett of London, whom I have also seen do these graduated temotomies for eyestrain, like Landolt and Ranney prefers the mathematical means when possible.

It is not necessary to make the patient believe that a surgical procedure is always necessary in these cases. The surgical effect, as a means to the end, may, in some cases of a psychical character, reach it more surely when the nerve reflexes assume a certain phase, but I think that this would apply only to exceptional cases. Yet is it not a fact, that most oculists know mechanics—surgery—best, and prefer it to the complications of refraction tests, especially when the astigmatism is out of the rult? Still there must be some who do know refraction as well as they know surgery, and the ideal oculist should be the one who knows both alike. Yet it is probable that the latter is in the minority.

That eyestrain is at the bottom of many—very many—of the constitutional nervous symptoms that are daily met with is ceasing to be a doubt during the last decade. The question is now becoming, how to detect and correct these slight errors as well as to be sure of the part they do, or do not, play in the general nervous panorama.

While in eyestrains that are so palpably—so plainly—associated with general nervous phenomena, we feel almost confident now, that we can relieve the last if we can succeed in relieving the first, that is when we relieve the cause, its nervous sequalae disappear. But we are not yet so accustomed to these good results that so oftentimes follow as not to be a little surprised at each of our successes. Especially is this the case in old and long continued sick headaches, considered incurable for so many years, when such cases give way, and disappear entirely as a result of neutralizing an eyestrain. And then when we find that this strain is sometimes the causative factor in chorea and epilepsy, which when properly corrected, often results in their relief, surprise gives way to gratification.

What is now known as eyestrain, only eighteen or twenty years ago, was regarded so lightly, in truth, so little was known of it, that the text-books passed it by with a line. But about twelve or fifteen years ago the Medical Journals began to publish some thoughtful articles on the subject, and most prominent among the first of these were written by Dr. A. L. Ranney of New York. Yet all the papers written at that time were most guarded in their tone. They were tentative, the authors had no firm foot-hold, no premises upon which to base their conclusions. Up to this time the text-books had reached only a paragraph on the subject of eyestrain, but from that time every oculist who has written a text-book has wished before the ink was dry on his first edition that he had his proof back, in order that he might add a page on the systematic complications of eyestrain and its correction.

This has also been true, in a measure, with the neurologists, who have written during the past decade, but even he has had to console himself by adding a page to his next edition, and still another to its successor, until now the subject is given a whole section, in order that all of its methods of detection and correction may be described, together with its far-reaching possibilities.

Twenty years ago, when the patient could read 20-20 Suellen, and No. 1 Jaeger at the ordinary reading distance, and could neutralize a prism of a medium degree, it was not thought necessary to consider his other subjective symptoms. In truth his eyestrain, with all of its sequela symptoms were passed by and the patient was dismissed with some mild collyrium, although his conjunctive may not have suggested it. He was told to return in a few days or a week if his eyes were not better. Frankly, this condition was such an enigma to the oculo this then unknown and curious phenomenon. When the patient did return, as he found there was nothing else for him to do (as a matter of fact the oculist felt somewhat the same way) he was told to rest his eyes, and continue the collyrium for a week, and return again. That is, he was told not to use his eyes for close work (reading) as though muscular inco-ordination, (probably the prominent factor in his eyestrain) would not be more taxed in its efforts to fuse rapidly passing objects at a distance (20 feet or more) than it would be in following printed matter. This of course presupposes that the accommodation was not too much taxed by a refractive error, or by an induced cilliary muscle paralysis.

In my record books of sixteen to eighteen years ago, I find some cases of so-called intractable neuralgias, with eye complications, supposedly so, else the patient would not have consulted me, that were almost immediately relieved with mydriatics. But the lenses that I then prescribed, as I now see, did not meet the indications. They were probably too strong, or did not combine the proper prism combinations, as after a short time the patient would return to be again relieved, with atropia, or scopolomine or some other mydriatic, and also to ask that his lenses be changed. Some of these cases returned again and again with the hope of getting even a week's respite from

the nervous reflexes of their eyestrain. To say that I do not look back, now, upon these records with any degree of satisfaction, is putting it mildly, yet I think I did the best that was then known to be done in such cases.

It must not be forgotten that it is only during the last two decades that slight errors in refraction and in muscular inco-ordination (in eyestrain the two are usually associated) have been regarded worthy of serious consideration by the profession in general, or by the laity, and even by neurologists, who it would seem should have been the first to grasp the idea, yet it is now the neurologist who is taking the firm hold, and is resorting to this means to meet the end in his own cases, where there is a suggestion of an eye complication.

Today it is only the few who do not realize and acknowledge the good that has already been reached by the later and more exact methods by which the oculist can now detect and correct the seat of these nerve reflexes. Many, especially the neurologists, are looking forward to still greater results for the future of these researches.

Back in the later eighties, some twelve or fifteen years ago, I got my first incentive to study this subject more carefully, from some very able, and at that time, rather risky, if not daring papers by Dr. A. L. Ranney of New York, who was the real pioneer in the development of this idea, as he is the Nestor of its present accomplishments. Dr. Ranney has with much patience and preserverance accomplished as much if not more than any one else in ferriting out eyestrain as a factor in general nervous derangements, as he has also in finding the best means of detecting and properly correcting it. This has made him, at the present time, one of the most frequently consulted of oculists, especially by neurologists, who by exclusion suspect eyestrain in their patients.

It was afterwards that I was in the private ofice of Landolt of Paris for some weeks, just when he was making a clinical study of eyestrain and its reflexes, by massing there all the cases of this nature within his reach. While he resorted to all the modern methods of testing small degrees of refractive and museular errors, he usually relied on the simpler means, many of which were little devises of his own. In some cases, when the astigmatic angle was ont of the rule, I have seen him insist upon the patient using even an eighth cylinder, (12,5) possibly with, but sometimes without, a prism, for the relief of an occipital pain which is often almost a pathognomonic sympton. Usually, however, he added the prism when there was a question as to whether or not a graduated tenotomy had been at first indicated.

That eyestrain is a frequent, and unrecognized factor, in truth a source even of epilepsy, is now scarcely a question. There are hundreds of authenticated cases of true epilepsy of long standing that had persistently resisted its so-called classical treatment, that have been entirely cured by the relief of the coincident eyestrain. That epilepsy is reflex in its origin is no less plainly shown from other points of view, as when we find its cure affected by the removal of other sources of reflex irritations; such as circumcision, the fixation of a floating kidney, the correction of pelvic anomalies, the loosening of old cicatrices, etc. The theory of its blood origin is now scarcely tenable. But the detection and correction of slight refraction and muscular errors in epileptic cases are tedious, and often very difficult, yet when we find by exclusion, that there are no other probable sources of reflex, our time and patience should be accorded in this direction to any sufferer from this dread malady, not only for the sake of the individual, but for the benefit of others, and in the end for our own good.

In some cases of cross eyes, even of extreme degree, when not of long standing, it is not advisable to resort to surgery in the beginning, as many such cases will have their muscular deformity restored by lenses that correct the refraction error, which is usually an out of the rule astigmatism.

When an error of refraction, usually an astigmatism, is combined with a muscular error that borders on "squint" without an actual deformity, the nervons reflexes from the eyestrain are often extreme, as almost any nervous disease of a functional character may follow such strains, as headaches, nervous prostration, neuralgias, epilepsy, chorea, etc.

In truth this is one of the most important advances in the medical history of the last decade—not so generally known and talked about as some others—but none the less is it an unquestionable fact.

The many instrnments of scientific percision that have been devised within the past fifteen to twenty years, that were before unknown, have helped to reach this end. And it is not alone upon the reflex nervous derangements, but also upon the mental and physical developments of those who are suffering from eyestrain that these recent discoveries are producing their good effects.

The expression of the eye is rarely pronounced to an extent sufficiently for the parents or friends to suspect the eyes as the cause, since the anatomical or muscular deformity does not appear upon the surfaee. The family physician, the neurologist, or even the oculist does not yet suspect an eyestrain unless the chain of nervous symptoms are so plain that they cannot be ignored. The family history is a most important etiological factor. As other defects or peculiarities of features are handed down by heredity, so may we not expect anatomical derangements in the organs of vision by heredity? Why not, since the eye is the most complex, not only in its organic, but in its physical relations to the other functions of the body? That such heredity of visional anomlies should exist is not less remarkable than that the chin or the nose or the mouth should have the father's or the mother's impress. Why not then a myopia, or a hyperopia, or an astigmatism, or a muscular in-

co-ordination, or even an eyestrain by heredity?

I am myself convinced that a mydriatic should be used in eyestrain to suspend the accommodative in all cases under forty years of age, and this I think is now the generally accepted opinion. But when the patient's time has been limited I have sometimes tried to measure and correct these errors by resorting to some mydriatic, of a modified strength, or to none at all, but neither means has proved satisfactory to myself, nor even to the patient after a short time has passed. To make such tests and corrections properly, requires usually a week, or ten days, and even two weeks is best to be sure of the results, as it is quite as important to be sure of the optician's work, after the refraction prescription has been decided upon. My optician knows that I always see and pass upon all lenses and frame fittings that he makes by my prescriptions.

The muscles that control the movements of the eyeballs, get their incentive for action, for the most part, by involition, and they act not only in pairs, but as a rule in double pairs, yet the quickness of their movements exceeds, probably, that of any other system of muscles in the body. Hence the inaction, or out of action, of one or more of these muscles is soon felt especially when, as is usually the case, there is some coincident refraction error.

Every doctor has had his cases of functional nervous reflexes, each with its own particular phases. Usually such cases are periodic in their manifestations, yet sometimes they are continuous. But when he has eliminated every probable cause for such a reflex, and the patient persistently returns, he very naturally gets tired of it and enters the case on his note book as a "nervous crank." Finally he concludes to suggest only rest and seclusion, which is probably the first really good advice he has given his patient, presupposing that by exclusion, there could be nothing left but eyestrain as the cause. So when rest and seclusion has given the nagged, and out-of-gear eye muscles a little time to recuperate, the nervous manifestations are in abeyance for a time, the doctor has his cue for an eyestrain, and then when he has accurately corrected it and finds that all the nervous reflexes have disappeared, he will be almost as much delighted as the patient, but he will be even more surprised.

Finally: The importance of correcting astigmatism, particularly when out of the rule, and still more so when it is associated with any form of "heterophoria," is so much more apparent each year that I would urge all medical men to give such cases a more careful thought, and a more accurate investigation. And when the cause and effect in systemic reflexes are shown to be so intimate, there should be no excuse for not eliminating the first, when it is now well known that it can be done with the proper lenses usually, and when not, some modified surgical operation can be added to the mathematical solution of the difficulty.

[This subject will be continued in our next number, mainly from a literary point of view. —The Editor.]

Some Special Points in the Treatment of Syphilis.*

By Dr. James H. Reynolds, Asheville, N. C.

The introduction of the virus, whatever it may be, into the system, after birth, is through an abrasion of the skin or mucous membrane.

To this rule there is one exception—the woman may become pregnant through a syphilitic man, yet not contract the disease while the child may be syphilitic from conception and thus convey the disease to the mother.

The virus, at first so slight, increases, causing a reaction on the part of the tissues thus producing the chancre, or initial lession, beginning as a round cell infiltration in the blood vessels and following their course hence where the vessels are near the surface the parchment chancre results and when the vessels dip down in the tissues then is the Hunterian chancre produced.

As is well known, the period of incubation is from twenty-one to ninety days. Some authorities say that the poison has not entered the system but is confined to the immediate vicinity of the place of entrance, or as it has now become the hard indenated chancre. Stop and think one moment. On examination the lymphatic of the groin and posteria triangle of the neck will be found enlarged. If the poison is confined to the vicinity of the chancre why should even the inguinal glands be enlarged?

Taking for granted that our diagnosis has been made, are we to proceed at once and excise the chance? No. Be patient and allow nature aided by drugs to do the work for you. If we excise we are as certain to have a great and ugly scar to remind us of our rashness. Allow nature to do this for you, and as is generally the result no scar will be left. At any rate what is to be gained by this proceedure? the poison has enteder the system, if only as far as the inguinal lymphatics. This being the case is it possible to eradicate the disease by the removal of sa small an area as is done even by circumcision. The preferable treatment is to keep the surface dry and clean. An antiseptic wash to be followed by a dusting powder and bandage after prepuce has been retracted over glands. At this juncture are we to proceed immediately with our mercury and iodides? It is not always possible to make a posative diagnosis and as the delay will make no material difference, the writer would say wait until the secondary stage is ushered in, which as a rule, is within two months, say from six to ten weeks, when we

*Read before the Tri State Medical Association of Carolinas and Virginia, at Danville, Va., Feb. 23, 1904, and Buncombe County Medical Society March 21, 1904.

will see the eruption of the skin, mucous patches, alopecia, etc. Then we can begin our specific treatment with a true conviction, both for the patient and for physician, a condition that will be needed to carry out a treatment that will be of any benefit. As we all know to cure this disease it requires at least two full years and a surer plan would be to continue it for three. Now I ask you what patient would be willing to submit to such treatment if there should be the least doubt as to the true nature of the disease? You may ask what is to be done during this interval of two months? Have your patient consult a dentist and see that his teeth are in good condition, having them well cleaned, sordes removed and all cavities filled. This step should not be overlooked for we all know the result of so vigorous a use f mercury even when the teeth are in good condition.

In the secondary stage of syphilis our mainstay is mercury as by general use it is proven to be the one specific in this disease.

There must of course be intervals in the administration of mercury for purposes of ilimation and to aid in this process the iodids will be of great assistance, their time of usefulness however, being after the disease has reached the tertiary stage.

Of the many preparations of mercury, the writer prefers the protiodide, gradually increasing the dose one-fourth a grain daily until patient is saturated, which condition is shown by the metalic taste in the mouth and tenderness of teeth on striking together, then the daily amount is divided in half which will be the tonic dose for the individual. This treatment should be continued for two years at least; with intervals at which time the iodids may be given, or a complete rest may be taken. Along with this the patient is to be instructed to take hot baths 110 to 120 degrees F daily, as well as to drink large quantities of water preferably warm.

Other methods of administration of great value are by innunction vapor baths, intra muscular injections, etc.

Often the question arises, must we send our patients to Hot Springs, and other resorts of its nature? Of course the financial status of our patient will be of prime importance. The psychical effect will be a good one, causing him to be more earnest in his endeavors to rid himself of the disease, also the frequent baths and a large amount of water consumed will aid in the ilimination, thus allowing him to take larger quantities of the drug, but as far as the medical qualities of the water, it has none, so that if we can secure the same free use of water at home, why send our patient out under the care of another physician?

The writer assumes that, with the unlimited use of water, internally, externally, and, I would almost say, eternally, the same great good can be accomplished at home that has been done at these places.

In the the third or tertiary stage, the stage of deep ceated lesions of the bone, viscera, brain, etc., what is to be done? Are we to look or hope for a cure? No. The disease itself has run its course, and the troubles we are to deal with are the results. The damage has been done, and all we can hope for is to temporarily relieve the symptoms. In these conditions the iodids have proven most useful. How often, by the use of these drugs, do we see great gummatous deposits of the brain, bone lesions, ulcers, etc., disappear as if by magic. This, of course, tends to lead us to erronious conclusions, making us believe that we have cured our patient, but stop the treatment for a while and see how quickly these conditions reappear.

But once under control, and by the continual use of the iodid, it is usually easy to keep our patients in a comfortable condition.

And lastly—a point the writer considers most important is when we can say to our patient, "You are well!" This is an error that is too often made. We are all taught that after a patient has been treated and has no symptoms for two years after treatment is stopped, he may be considered well. In some cases this proves true, but we frequently see cases that have symptoms still later. Again, we see cases, say of some form of paralysis, with complete denial of specific history, but by the use of the iodids we see them clear up promptly, which fact is considered to be pathognomonic of previous specific disease, and when we confront the patient, his only excuse is that the doctor said he was cured.

POST-SCARLATINAL NEPHRITIS.

With Remarks on Some of the Acute Infectious Exanthomata.

By Robert E. Jones, M. D., Crystal Springs, Mississippi.

Our daughter, Wyeth, age 9, on January 24th, last, was taken with fever while her two sisters were sick with measles.

On the fourth day a scarlet rash was observed over chest, macular in form, with itching. It extended downward anteriorly in patches, covering the abdomen, and posteriorly to sacrum, being more intense on buttox. Throat very little affected, with enlargement of sub-maxillary glands.

Ten days prior to this she had severe follicular tonsilitis with the exudate. The glands had remained enlarged since that attack, though she had recovered otherwise, and had returned to school before this illness.

The tongue did not have the strawberry appearance. She was not confined to bed and felt discomfort only upon rise of fever at night. The rash faded in two days, followed by desquation of scarlet fever.

February 4th last, she again had fever, with catarrhal symptoms, followed by eruption typical of measles except where scratching and rubbing were used to relieve itching. In these

Read before Mississippi State Medical Association.

places the eruption assumed a diffuse scarlet redness.

Temperature ran high, often reaching 105 F.

This was followed by otitis media of right ear, with rupture of drum membrane.

February 20th otitis of left ear followed by rupture and temporary relief.

February 21, her mother noticed a little swelling about her face. Upon my return home after midnight of that day, marked oedema was observed and a grave condition recognized.

A specimen of her urine of dark brown color was placed over spirit lamp and upon reaching the boiling point, the tube was almost filled with coagulum.

She was at once given good doses of calomel, and without waiting for its effects, sulph. magnesia was given to the extent of free purgation. Tinct. digitalis and acetate potash were given, it requiring two drachms or more of the latter in the twenty-four hours to render the urine alkaline. This was followed by calomel in ¼ grain doses at various times, and Rasham's Mixture. Stafford's mineral water was freely used.

On account of nausea and vomiting and her general dislike to, and the disagreement of milk, that diet could not be used. She was fed upon farinaceous gruels. Temperature normal with occasional slight elevation, except when ear would give pain and discharge cease, at which times it would reach 102 or 103 F. Pulse 58 to 75.

Dry cups were applied over kidneys, followed by mustard and flax-seed meal poultices. Hot foot baths and hot sponge baths were given. The bowls were kept loose with salines and for the first week the skin acted freely.

The urine seemed almost suppressed. On account of loose bowels it could not be estimated. Enemas of normal salt solution were frequently used. Albumin in urine from 50 to 75 per cent. Specific gravity 1006 to 1026. Notwithstanding the apparent success of elimination the stupor and other nervous conditions were not improved.

The oedema grew steadily worse. On March 1st the face was swollen beyond recognition, with general anasarca great. Pain in head with twitching of muscles of hands, arms and face for past few days increased.

Chloral by bowel now insufficient to relieve these symptoms. A distressing dizziness is added.

We considered the hot pack the only resource. Dr. Pitts, of Hazlehurst, and Dr. Fulgham, of Jackson, were called, who with Dr. Dampeer, assisted by the nurse, and by me, placed her in the hot pack.

When stripped and placed in the blankets she resister to the utmost, showing great alarm and pleading in every manner possible for release. The cry of murder and the distress shown drove some from the room, and to the mother and those who remained, the scene was heart-rending.

Within a few minutes the itching of skin seemed unbearable. She kept her mother rubbing her nose and face for its relief there. Sweating was profuse. A few minutes later she became profoundly stupid and at the close of an hour when she was removed from the blankets convulsive movements were general and she was supposed to be dying. Morphine ⅛ grain, with strychnia were given hypodermically and she was wrapped in dry warm blankets and sponged under cover by the nurse, using cloths wrung from hot water. Free sweating for one hour after her removal. Strong odor of urine at all times, it being imparted to everything that came in contact with her. Temperature before the pack 100 F., pulse 120. A short time after her removal from it, temperature 100 F., pulse 132. Consciousness was restored in half hour and she seemed improved.

Daily, however, for five successive days when there would be a return of the alarming conditions the much dreaded pack would be used with the same fear and distress to her as the first. They were always followed by free sweating. She lost consciousness in the last pack and was in a spasmodic condition for one hour. Morphine ⅛ grain with strychnia were given as before. The complications in her case were numerous.

On March 6 the bowels began to be difficult to move, and they were greatly distended. Salines, having very little effect, were discontinued, and daily, and twice daily doses of oil were used in their stead.

The bowels were very tender on pressure and began to pour off great quantities of mucous, no straining, no desire to act except as induced by the oil. This colitis said to be produced by formation of ammonia carbonate, is also said to be attended by loose bowels. The reverse exists in this case. This condition continued for some time as a troublesome complication, but the bowels at this writing are near a normal condition.

The left ear gave serious trouble and fearing mastoid disease, Dr. Sims, of Jackson, kindly came in response to our request and gave us valuable advice as to its management. Carbolized glycerine 10 to 20 per cent. proved to be the best remedy used for the relief of pain in ears.

The urine remained bloody, becoming gradually, a brighter color and increasing in quantity till March 22 it was free from blood.

The oedema gradually disappeared upon the free action of kidneys. April 3rd 52½ ounces in twelve hours; on the 18th, 67 ounces in twenty-four hours.

The amounts given were measured and there Med Jour Fant 2

is no doubt but that she occasionally passed over 100 ounces a day. The condition of ears and bowels seemed to influence the amount of blood. When there would be an elevation of temperature the urine would show more blood and more albumin. Dr. Turner, of Jackson, came to see her and gave valuable information as revealed by the microscope. Of the five specimens he kindly examined for me, there were fewer casts, etc., with each successive

examination. See his report at the close of this paper. To go into a more detailed account of treatment and management generally would give too great length to this report. It was elimination, dietetic and supportive. She is now on iron with careful feeding, is up and active but is kept from currents of air and being carefully guarded generally. Her appetite was good throughout.

It is thought well that you may more intelligently consider this case and for the purpose of introducing the subject of complications, etc., to give a brief history of the acute infectious exanthemata that have prevailed for the past few months. They have existed in the form of varicella, rubeola and scarlatina. If these diseases have been as common over the state as in this section the physicians here assembled will probably have seen them in all their anomalous conditions and sequellae. It is to be hoped, therefore, that the introduction of the subject will cause an interchange of the experiences of those present, and that something may be added to the means now in use to prevent the maiming for life of so many of our children.

In December of last year our first cases of scarlet fever were in twin girls age four years, taken 24 hours apart without known exposure, and running a typical course without complications or evil results.

In January, Capers, age 13 years, had scarlet fever, regular in form with oedema of face for a short period as the only after effects, no albumin. Across the street from Capers, Joe F., age 18 months, became quite sick with fever and sore throat, a scarlet punctate rash, paling on pressure, following in 24 hours. No catarrhal symptoms, except a slight laryngitis. The mucuous membrane of fauces was thickened and red, and there was an early appearance of a membrane covering the tonsils, palatine arch, anduvula with enlargement of submaxillary glands. There was no subsequent desquamation.

Our experience in diphtheria would have led us unhesitatingly, under other circumstances, to have called this typical in its appearance of that disease as far as throat conditions were concerned. The existence of scarlet fever in our city, and the early appearance of the membrane led us to consider it a case of pseudo-diphtheria. Antitoxin, however, was held in readiness for use in case respiration should become embarrassed or the larynx much involved. The parents were opposed to its use but would probably have consented if the condition had grown more alarming. Its use should be used in all sases of doubt. The father and mother were quite sick with follocular tonsilitis with the exudate, the former with scanty urine, albuminuria and uremia. He had no knowledge of previous disease and has been well since.

Otitis media with otorrhoea has been common, two cases of nephritis with anasarca, rheumatism, pnenmonia and dysentery have been the complications and sequellae of measles.

One of our children, age 12, was taken with measles on January 21 last, and another, age 14, two days later. The younger had the disease in regular form. She had typical scarlet fever four years prior to this time. There was no desquamation of scarlet fever in her case. Upon the appearance of the eruption of measles on the face of the elder, however, a bright scarlet rash appeared on and covered the anterior parts of the legs below the knees. Subsequently the desquamation of both measles and scarlet fever occurred in her case.

Report of Dr. O M. Turner.

March 6th, 1904.—Sp. Grav. Alb. 40 per cent. React. Alk. Trip. Phos. Uric Acid Crystals in quantities. Granular Casts in quantities. Renal Epithelial cells very few, blood and puscells in quantities.

March 10th.—Sp. Gr. 1006, Albumin 20 to 30 per cent React. Neut., no casts no puscell renal epithenium in greater quantities than before.

March 11th.—Sp. Grav. 1018 React. Alk. Alb. 15 to 20 per cent. Gran. Casts and one epithelial in field. Renal epithelium present.

March 12th.—Spr. Grav. 1013 React. Acid (Slightly) Casts Gran. Alb. 15 to 20 per cent. few Epithelial Cells.

March 13th.—Spr. Grav. 1015, React. Acid, Alb. 12 to 15 per cent. Casts Gran., numerous, few Epithelial renal cells.

March 18th.—Sp. Grav. 1015 React. Alk. Alb. 3 to 5 per cent, Casts Hyaline, Renal Epithelium diminishing.

March 30th.—Sp. Grav. 1014 React. Acid, Alb. 5 to 10 per cent. Hyaline Casts, Renal Epithelium noted.

April 3rd.—Sp. Grav. 1008 React Neutral, Cast Hyaline, Renal and Visicle Epithelial cells noted.

April 4th.—Spr. Grav. 1010, React. slightly acid, Alb. 1 to 2 per cent. No Casts, Renal and Visicle cells noted.

April 20th.—Spr. Grav. 1018, Alb. 15 to 20 per cent. React. Acid, Casts Granular, Renal cells noted.

The Philosophy of Suggestion. A Theory.*

By Jno. R. Rose, M. D., Eastman, Ga.

In a systematic study of phychology the student will sooner or later arrive at a place where, like at "the parting of the ways," he must choose which one of two different lines of thought he will follow; this choice is made a necessity from the fact that both can not be true while it is simply a matter of individual temperament as to which one will be chosen. These divergent lines of reasoning have their beginning in the very concept of mind itself and are expressed today by two schools or branches of mental philosophy, each one with its zealous supporters and defenders.

The rationalistic school had their first great

*Read before the meeting of the Georgia Medical Association, April 22, 1904.

champion in Locke, the English apostle of rationalism, who in "Essay Concerning the Human Understanding" built the platform upon which they stand today. He taught that mind is limited by consciousness, that all activities beyond the confines of conscious recognition are physical and not psychic; he took the position that whatever is not capable of direct proof has no existence. In 1696 the German philosopher and mathematician, Leibnitz, undertook to answer and disprove the arguments of Locke and as a result gave to the world his "New Essay," which must be considered the first concise statement of the claims of idealistic psychology, though he only elaborated theories that date back as far as Plato. Liebnitz undertook to prove that mind is not limited by a conscious recognition of its existence, that it exists outside of and beyond the limits of consciousness.

To the rationalist, mind is like a cultivated field, strongly fenced, beyond which there is no further arable land; to the idealist, mind is a vast expanse, of which only a small part is fenced in and under cultivation, the rest being unknown territory. To more fully illustrate the idealistic concept of mind, it has been compared to a bridge composed of three arches that span the chasm between the divine and the material; of these only the middle arch is illumined by a strong light, consciousness, which very rarely allows fitful flashes to dispel the gloom of the other two, and then only for short distances. The first arch begins in absolute darkness but in direct touch with the divine; here we must look for the home of inspiration, imagination, genius and spiritual instinct, whose impulses are constantly traveling to the circle of light beyond where they manifest themselves as thought, feeling or action. On the other side, the third arch is again shrouded in darkness, the end resting on the material; here we may expect to find the dwelling place of physical life and instinct, of passions, vices and low tendencies, whose impulses are also traveling to the circle of light to war with and modify or be modified by those from the other side. Whether we accept this concept of mind or not, it is undeniably true that mental work is accomplished without the aid of consciousness and though we may not and do not know when this work is being done, yet we do know when it is done by the finished product of this work; just as when we see a house, we know from the very fact that the house is there, that work has been done there by carpenters, masons, painters and others, though we may have no conscious knowledge of such work. It is a common experience that, after vainly trying to recall some forgotten incident, the conscious will gives up the attempt and turns attention to other matters, when suddenly, without any conscious effort, the lost thought leaps into the field of consciousness and brings that part of memory once more within reach. In this connection I remember an experience of my own; as a schoolboy I was very fond of working geometrical problems and would frequently sit up late at night trying to find the solution. One night, after working on a problem almost as difficult apparently as the squaring of the circle, I retired to bed about midnight no nearer a solution than I had been at 10 o'clock; I went to sleep at once but woke suddenly about an hour later out of a deep sleep with the solution of the problem as clear before my mind as could be. I got up, worked it out on paper and then went to sleep, a happy boy. Clearly a case of unconscious mental work done while consciousness was dreaming.

Not many writers today deny unconscious mental activities, when applied strictly to mental phenomena as expressed by thought and feeling, but when one tries to extend this same law to conditions outside of these two, such as action, and especially that automatic action governed by the sympathetic nervous system, there is at once objection from many sides. Yet all have to admit the close interdependence and relationship between the physical and the metaphysical, between body and mind; all are forced to admit that a mental cause may bring about a bodily effect and that physical conditions may result in mental states; but though this is admitted, it is admitted only as coincidence and because human ingenuity has failed, so far, to find the potential governing the two, they prefer to believe that body and mind are governed by two essentially different laws; that the dividing line may be drawn by limiting mind to conscious activities and placing all activities below the level of consciousness on a physical basis.

It is, of course, granted that many intellectual activities depending on the exercise of reason can be exercised only in an atmosphere of consciousness, but then the intellect is only a very small part of the human mind and we have yet the emotions and volition to account for in our mental make-up. It has been claimed that every child is born with two emotional factors, love and a sense of justice; but this is at best only poetic license and probably has no foundation in fact. The emotions evidently develop unconsciously through external impressions upon a foundation of instinct, just as ideas develop in the same manner consciously upon a foundation of sense. But the birth and growth of emotions is forever hidden in a state of mind far below the reach of conscious recognition; we are conscious only of the "feeling" but not of the way we came to feel. We may know that we love, but we don't know "how" and frequently not even "why," for the intellect can not explain the sensibilities, it can only recognize and control them.

The pursuit of happiness has been one of the earliest occupations of mankind and wisdom, as embodied in philosophy, has pointed out many ways for its attainment; but philosophy has always fallen short of its aim, for that which makes happiness seem attainable, is a complementary quantity, which must of necessity differ with each individual and, since it exists only with and in the pursuit, can yield at the moment of seeming attainment only

disappointment or content, but never happiness.

Close to happiness, though divided from it by a gulf of Plutonian depth exists a peculiar mental state known as content, which is both an emotion and a logical state of mind; we may not only feel content but we must be content in order to feel so, and we can arrive at this condition by both the emotional and intellectual routes. Content differs from happiness in that the one is an active, the other a passive state; we pursue happiness, but we rest content. Here, therefore, we find a common ground for two different antagonistic mental states and this condition of mental equilibrium can be made use of in medicine as we will see later on.

When we now consider the relation of volitional activities to unconscious mental forces, it may seem at first view a silly undertaking to speak of an unconscious will, for our accepted concept of will includes the recognition of consciousness, yet I hope to show that this folly is more apparent that real; it is true, the exercise of will is a conscious quality, but the forces that make and mould the will are frequently far below conscious recognition. Just as a parent's will may run counter to the will of the child and force action that is not the result of choice or desire, or force conduct that is against the child's individual inclination, just so may unconscious psychic forces alter and modify the conscious exercise of will in the individual; yet in both instances it is conscious volition that carries out the dictates of the higher power, and if it is modified in one case by the parent's will, it is also modified in the other by unconscious forces having the full effect of will; it is therefore within the limits of probability to speak of an unconscious will. In this category belong those muscular expressions based upon instinct and governed by impulse, such as the smile of pleasure, the frown of anger, the cry of pain and many more; it forms the only scientific explanation for the phenomena of physiognomy, where the movements of facial muscles, unconsciously acting during certain mental states of feeling and thinking, by frequent repetition of this action become permanently fixed in certain degrees of contraction and so stamp each face with a record of the individual's foremost thoughts and feelings. The supercilious brow, the crafty eye, the disdainful nose, the poor mouth, the resolute chin, the sensual lip, all are physical expressions of mental states and are forced upon us by the unconscious will of habit. But this unconscious will of habit is capable of directing actions other than those based upon instinct, and whether it be the hands of a typewriter or piano player, whether it be the foot of a clog dancer or the eye and wrist of a sportsman, whenever the work done has become automatic by habit, it is no longer directed by conscious volition but by a will that, though unconsciously exercised, is yet capable of performing better work than its conscious brother and it is the experience of those enabled to do work automatically through force or will of habit that by directing the conscious attention to this work the result is less satisfactory, the work less accurate and the time consumed greater.

But other complicated muscular movements besides those of acquired habit are carried out by this unconscious will, movement which apparently reach a purely physical basis; if I consciously will to make a step, it must be remembered that I will simply a result, a finished effect and that the thousand and one activities at work to bring about this result are forever hidden from conscious recognition, but just for that reason to consider the entire movement a physical manifestation is simply absurd and preposterous; the impulses that excite the various muscle fibres at the proper times to just the right amount of contraction in order to bring about the desired result, are certainly of psychic origin even though they exist outside the zone of conscious recognition. The conscious will is like the telegrapher pressing a key, and forces, the very nature of which he does not understand, flash a message across a continent or under an ocean; yet the operator is conscious of nothing but the clicking of his own little instrument.

So far we have been considering only the relation of an unconscious will to the cerebro-spinal nervous system and, perhaps, I have had a good many of my audience with me, but if I now extend the law undedlying these phenomena to the work done by the sympathetic system I may find some difficulty in carrying conviction, for here we are on ground that is absolutely below conscious recognition during health. It is only during ill health, in certain emotional states and by focussing the attention upon physical conditions, as in introsection, that we can consciously recognize some of the work done by and through this system of nerves. In disease the circulation, respiration, digestion, secretion, thermic and sensitive sensations, all rise into conscious prominence as expressions of interference with normal nerve activity; in emotional states of high degree we have the most varied interference with organic functions through these same nerve channels. Love destroys the appetite and disturbs digestion; anger interferes with the secretion of bile in the hepathic cells and may cause jaundice; fear and shame affect the circulation both centrally and peripherally; hope has a tonic and stimulant effect on the whole body, and so on. As a proof of the interdependence of mind and body it may be remarked that not only do mental states give rise to physical ailments, but physical ailments also give rise to mental states; chronic liver trouble results in irascibility as often as chronic digestive troubles do in dejection; long continued suffering generally brings sadness or petulancy, while certain forms of insanity may follow in the train of uterine or ovarian disorders. The pernicious habit of introspection as exemplified in diseases of the imagination, such as hypochondria, hysteria and many neuropathics, is a prolific cause of bringing to conscious

knowledge the activity of the sympathetic system and by implication of the cerebro-spinal system may simulate almost any disease known to medicine. In religious extasy we find that the focussing of the attention on the bleeding wounds of Christ makes it possible for a Louise Latour to show the stigmata of the Saviour, and even in the Bible we find the power of attention and expectancy acknowledged in the words of Job "The thing I greatly feared is come to pass." But outside of every question of disease, if one in perfect health fix his attention for some time upon any part of the body, say the hand for example, even the least impressionable will shortly feel there sensations of either prickling or twitching, due possibly to the recognition by the aid of imagination of otherwise unconscious nerve activities. That in the recognition of these normally unheeded phenomena the imagination plays a leading role, there can be no doubt and the imagination therefore stands in very bad odor with the medical profession who used to consider every sensory disturbance recognized by the aid of the imagination as imaginary; today it is generally conceded that in those diseases affecting the imagination, the mental faculty of perception is heightened and sharpened to a degree sufficient to permit of the recognition of sensations that in the normal state of health never meet with conscious acknowledgement. This faculty of imagination plays a prominent part in our mental make-up, for every conscious mental activity that does not depend on present sensory impressions has its birth here; and even the exercise of reason is made possible only by the imagination moving along lines of logic in the full light of conscious intelligence. It is only too true that this far-reaching and powerful force has received but scant courtesy and slight recognition from physicians in the past and it is only since medical men have taken up the study of psychic phenomena as presented by that latest of modern therapeutic measures, hypnotism, that the powerful influence and far-reaching effect of imagination on bodily conditions have received anything like a reasonable share of its due recognition.

We have seen that even in health this psychic activity may be acutely sharpened by a willful concentration of the attention upon the physical; that in those psychoses involving the imagination this concentration amounts to morbid introspection and permits of the recognition of sensations normally belonging to the realm of the unconscious; that the emotions, whose very existence is centered in the imagination modify organic function and that even in organic diseases certain sensations, normally unrecognized, are brought to the patient's knowledge and that this acuteness of perception is brought about either by the imagination itself or by some force depending on it for outside of present sensory impressions every mental activity capable of reaching consciousness is fundamentally sustained by this faculty, and ideation, conception, mental association and cognition would be impossible without it; language with its symbolism of mental images could not exist and knowledge and science would never have seen the light of day; but even sensory impressions without it would be but a collection of dead perceptions, provided they could exist that way, memory would be a useless faculty capable of recognizing only present objects, for memory of past impressions requires imagination. Just about this time, I am afraid, some of you will exclaim in disgust "Pshaw! The whole thing is imagination," and, no doubt, the provocation is great, for I acknowledge that it may be difficult for the general practitioner, fully occupied with the material manifestations of disease, to grant a leading role in the production of many of these manifestations to an agency that professional tradition has banished to the society of women and weaklings. It is only those who have studied the imaginative force in that mental state known hyponsis, who can form an adequate idea of its possibilities; only those who have witnessed the practical demonstration of the motor value of an idea, in its intricate and seemingly impossible manifestations, will be willing to admit that the most powerful factor in man's mental make-up is the imagination, restrained in the conscious state by "that acquired knowledge of the value of probabilities, known as reason, and guided by that inherited, unconscious and automatic knowledge of the value of experience, known as instinct." Those who have seen an idea alone or assisted by a swallow of water have all the effect of a dose of salts; those who have seen the acrid vapor of fuming nitric acid or concentrated ammonia produce the delight of a bunch of roses or violets by an appeal to the imagination; those who have seen the nerve paths of habit blockaded by a suggestion and the nervous symptoms of hyper-pyrexia, hysteria and neurasthenia relieved by the power of a word; those who have performed painful operations under ideational anesthesia, they alone have a right to disagree with the claims made and offer some other explanation.

If we now ask if this wonderful psychic faculty, capable of such manifold physical results, can be made to conform to recognizable laws, can be made to work as a therapeutic means for the relief of pathological conditions; if it can be held captive and be led or driven at will, we shall not be far wrong if, within certain limits, we answer this in the affirmative; we can harness it like Franklin harnessed the lightning, and we can lead it by a halter or drive it with a bridle.

Since the earliest times the medical profession has recognized the value of an appeal to the patient's imagination, and has followed the dictates of this recognition by supplementing medicinal drugs with medical advice; in modern times the value of this adjunct has been brought more and more into prominence, so that it is frequently the principal remedy used, and the drug-habit clamor for medicine is appeased by a placebo. This

advice forms a halter by which the patient may ofttimes be led, especially where his imagination, as expressed by credulity and confidence, is enlisted in the physician's behalf; but, like the halter on a horse, it is at best only of dubtful value as a means to an end, unless the horse be willing; we may pull around the head, the intellect, but the legs may refuse to follow. Advice, when running counter to the dictates of habit, stands but a poor showing, for the will of habit is even stronger than the dictates of reason, and may modify conduct in opposition to conscious desire. Medical advice, admonition and argument, when used during the patient's conscious state, has to divide the latter's attention with the many perceptions from sensory sources, with a multitude of conceptions through mental activity, all of which interfere with and modify the desired result, so that this halter, when applied to the imagination, is effective in proportion to the strength of the hand that holds it, and the greater achievements of some physicians in medicine, and the success of others as leaders of men on the fields of politics, religion and science, must to a great extent be considered as due to their greater hold on the imagination of their fellow men. Yet this is a hold that to a scientific mind must lack the first and foremost element of success, certainty, since it is based on factors that in the present state of our knowledge admit of but vague calculation and are ruled almost entirely by the laws of chance. Nevertheless, in medicine this slight hold on the imagination of the patient has been productive of a large amount of good, and has been recognized as a valuable assistant since the earliest days of the art of prescribing.

From what has been said, no doubt, it would seem that if the factors of interference, outside impressions and conscious ideation, could be eliminated, this hold on the imagination would become strengthened, the halter would become a bridle, and the thankless task of leading would give place to the more satisfactory method of driving; that such a condition of affairs can be easily, harmlessly and satisfactorily brought about, I shall attempt to prove.

When we look at the factors that so greatly interfere with the acceptance of suggestions in the normal, conscious condition, we must see at once that they belong to two classes of mental activities, the intellect, made to vibrate by sensory impressions, and the emotions, thrilling with conscious ideation; if now we desire to diminish or eliminate this doub e interferencel in a manner at once harmless and natural, we must search for a mental state in which both intellect and emotions meet as on a common ground, where, figuratively speaking, the vibrations of the one interfering with those of the other produce a state of mental equilibrium and quiescence that admits of the assimilation of pre-digested ideas without effort and without opposition. This mental state is found in content, which, both in its intellectual and its emotional existence, means exactly the same thing. We are content when we feel content, and vice versa, a condition of things that is, I believe, unique, and not found in other mental states; we may feel rich without being so, we may be hungry without feeling so; we may feel careless in deepest misery; but we cannot feel content unless we are so. Disposition or alcohol may succeed in preventing our consciousness from recognizing an existing condition, pla'n to every other mind, by hiding it behind a emotional feeling of opposite effect, but ..ither the one nor the other can ever hide a st ite of discontent behind a feeling of conten ment, nor is a feeling of discontent possible when we are perfectly contented. Theoretically we ought to be able to produce this feeling at will, but it is hardly necessary to remind you how difficult it is to reduce this to practice, and if success depended upon our volition alone, the imagination would not often have to submit to the bit. However, by analysis, we find that this state contains two everpresent, concomitant factors, mental and muscular relaxation, a condition partly or entirely under the control of volition; those who can not will mental relaxation can at least produce perfect muscular relaxation, and this, they will find, soon results in mental quiescence and rest. This, if not content, nevertheless leads to it shortly with continued relaxation; the subject is not only content with his present condition, but content to remain so. This is a beautiful illustration of the relationship existing between body and mind; contentment gives rise to mental relaxation, mental relaxation is expressed by a relaxing of the muscles and reversely, if we fully relax the muscles of the body, we soon experience a feeling of mental rest, followed by satisfaction and a disinclination for change, in other words—content. In this artificially produced mental state we find by analysis that the feeling of absolute rest enjoyed by the patient is so grateful that he is satisfied with it and desires to retain it, therefore sensory impressions requiring a change of mental attitude and attention are responded to but slowly and superficially, and unless very forcible will not be attended to at all, for the attention becomes more and more centered and focussed upon one idea—rest, till finally there results a state of mental lethargy, expressed physically by muscular catalepsy or the inability to move the body; an illustration of the well-known psycho-physiological fact that the volitional or enforced disuse of a function results in inability to functionate.

In this state of mental lethargy the subject shows decided disinclination to individual ideation, and for that reason is willing to at once assimilate suggested ideas that are finished products of mental work, such as unqualified statements and suggestions, provided they are not of a nature sufficiently antagonistic to his normal state of mind to arouse opposition and thereby individual ideation.

This concentration of the attention upon one idea is capable of being carried to such an extent by some individuals, that no volitional ideation is possible, that memory is lost in oblivion, and the subject becomes more or less an automaton, actuated by sensory impressions at the will of the operator; but consciousness is never lost, for the subject can see, feel, hear, touch, taste and smell, is conscious of actual or suggested sensory impressions and may even retain the memory of this consciousness on attaining his normal state, if this be suggested; he is simply in a condition of mental plasticity, to be moulded according to his individual mental make-up, but never against it. To force suggestions on a subject in this condition, that he or she would turn from in their normal mental state in shame, horror or disgust, will result either in absolute inactivity or convulsive excitement. Where the subject's confidence is enlisted in the operator's behalf, and the subject unconsciously feels or knows that no harm will result, he or she will even carry out suggestions that have all the flavor of criminality, at least such is the experience of those few who have dared try the experiment for the sake of scientific investigation.

This state of mental lethargy, from a feeling of delicious restfulness to a condition of utter oblivion to the present, is known as the hypnotic state, a term that allows a great deal to be desired; the condition has nothing to do with sleep, as Bernheim pointed out long ago; the drowsiness, somnolence and apparent sleep are simply the result of suggestion, they are only a means to an end but not the end itself; the primary state of content, with its disinclination to think and move, and its one idea of rest, is fortified by suggestions that tend to make this disinclination an inability and the rest complete, therefore suggestions of drowsiness, somnolence and sleep.

Now, for therapeutic purposes, it is very rarely necessary to push this mental lethargy to the extent of causing the memory of consciousness to be lost on awakening; besides, this can not be done in every case, and frequently proves to be a tedious, laborious and time-killing undertaking; only in those cases where we desire to overcome the stubborn will of old formed habits or the fixed ideas of a diseased imagination, will it become necessary to reduce to the minimum the volitional mental activity of the subject, and to do this we have to produce the degree of hypnosis known as somnambulism.

Every physician since before the days of Hippocrates has unconsciously made use of the lighter stages of this condition in his treatment, and I shall not be far wrong when I say that there is hardly a patient who does not, to a greater or less extent, relax in the presence of his physician, and, by fixing his attention expectantly on help, realize more or less the object of his expectancy by the simple presence of the doctor. In what other way can we explain the relief felt by the doctor's coming, or what else is it that stops the toothache on coming to the dentist's office? How can we explain the reputed cures—and some of them are true and well autenticated—of faith doctors, Christian Scientists and other charlatans, except by the fact that, during a state of mental quiescence and expectancy, the attention focussed upon a desired result, the human mind is enabled in certain cases of extreme auto-suggestibility, to realize its desire by a mental effort; the humorous side of this treatment lies in the fact that the patient does all the healing himself, and then liberally rewards the "healer" for seeing it well done.

Every patient has a friend in hope and an enemy in dread, and it is the pleasure of the physician's office to change the one into the other; we, as a class of men experienced in practice, dread the power of expectancy when it turns the wrong way in cases of low vitality and fixes the patient's attention upon dissolution. To regard this as a premonition of intuitive forces is, of course, within the limits of probable truth, but I believe that in all cases the realization of expected evil results should be looked upon as the effect of the powerful influence of fixed ideas acting by suggestion.

Scattered along the pages of history, especially during the times when credulity and ignorance were the common lot of men, we find mention of a peculiar condition of affairs that will interest the student of psychology. We find mention of citations or summons before God (Ladungen vor Gott), where some person with a grievance sommoned one, two or more persons to meet him before the throne of glory at a certain specified time in order to try their case before the Great Judge, and which summons was obeyed. Lack of space forbids a discussion of these cases, and I will quote only one: Jacques de Molay, the last Grand Master of the Knight Templars, when slowly roasting at the stake, with his last breath called upon Pope Clement V. and King Philip le Bel of France, the enemies who had condemned him to this terrible death, to meet him at the bar of Justice within the year; De Molay was executed March 19, 1314; the Pope died April 20; the King November 28.

History holds many similar instances, and, of course, they are capable of different explanations; in the first place, we might look upon them as legendary tales and unworthy of credence; or granted that they were true, they could be regarded as remarkable coincidences based upon unknown laws of chance; some might see in them an avenging Nemesis, others the hand of God, and while it is impossible to say who is correct, I believe the only theory offering a reasonable explanation in the light of modern investigation, is the one that tries to explain these phenomena by suggestion and expectancy. A similar condition of things existed in modern times among a certain race of aboriginal people, and though I have forgotten names, I remember the facts as I read them some years ago in some book of travel. Murder is unknown

among these people, but if one happens to get a grudge against another he erects an altar before the enemy's hut and prays to the Great Spirit to destroy him, and here he stays and prays till the other dies, which generally happens in a short time. The traveller who records this custom tells that for some reason or other the chief became offended with him, and to his surprise he found the old fellow one morning before the hut praying for his destruction; this went on for some time, and finally becoming annoyed at the never-ending incantations, in a spirit of fun, he proceeded to give the fellow a dose of his own medicine; so he improvised an altar near the chief, and started an opposition show. To his great amazement, the chief ceased his incantations shortly after, went to hut and died. As I said, I do not remember the author of this tale, but if not true, it at least depicts a state of mind that may well exist, and that permits of a reasonable explanation.

There can be no dubt that under certain conditions the imagination can act as a great modifier of bodily functions, that functional activity may be interefered with to such an extent as to make life impossible, and that disordered functions may be modified so as to make recovery more probable. In the storehouse of mental forces it is the all-prevading power, making itself felt at every turn, being present at the birth of every thought and thrilling every emotion. Trained by the will along lines of logic, it forms the sub-stratum of reason, but though the will controls action and emotion, it can not always control imagination, for this sometimes discards reason, blossoms out into fancy and riots at will. But we have seen that there are times and conditions when the will can enslave imagination, at least for a time, and make it do certain work; when the mind is quiescent and external sensory impressions are in abeyance, when it is in a state of contemplative abstraction and relaxation and content pervades all feeling, then an outside will may make the imagination captive and lead it or drive it by means of suggestions; it will then, provided all the necessary factors are working harmoniously, control bodily functions, at least some of them, at the command of this outside will and so can be made of use in the fight against disease and ill health.

In conclusion, I wish to say that in gathering this little bouquet of facts and fancies, I have plucked flowers from many gardens, and it will be useless to ticket each one with its place of growth; the theory advanced here of the relation between suggestibility and the mental state of content, making the former active through disinclination to individual thinking and motion, I do not remember ever having seen advanced before, and it is offered for what it may be worth. It is undeniably true that content is sentient nature's state of passivity, a natural state of rest, in which thought and will are held captive by a feeling of delicious inactivity, and the imagination gracefully yields to the dictates of outside impressions insufficient to interfere with this feeling of safety and satisfaction. The deepening of this state of passivity in a natural and therefore harmless manner into a condition where individual effort is not only undesirable but impossible, means simply so many stages of hypnosis, and the deeper the passivity the greater the ability to assimilate acceptable suggestions.

The Treatment of Cancer.*

By M. B. Hutchins, M. D., of Staff of Presbyterian Hospital, Atlanta, Georgia.

The physician or surgeon who undertakes the treatment of cancer has a task in no part of which he may expect much from Vis Medicatrix Nature. Cases of spontaneous recovery, as seen in so many maladies, are almost unknown. It is a fight to the end and against all kinds of odds. The first obstacle is the dilatoriness of the patient through ignorance, fear of mal-influence in seeking competent medical or surgical service. The most insurmountable obstacle is the pathology of the disease..

The essence of its pathology is erratic unlimited cellgrowth and metastasis. Other growths may be quite clearly outlined, the carcinoma or sarcoma may hold its least dangerous site in the part visible or palpable, cells, resembling normal cells, or, recessive in character, take on abnormal multiplication and increase under some, as yet unknown, stimulus, invading tissues to which they are alien, sapping the vitality of the normal tissues, taking a place which they are not vigorous enough to sustain. Then follow ulceration and necrosis while growth progresses, and, in the majority of cases, drifting of some of these cells through the lymph or blood channels to other points. This metastasis, or separation of cells to be lodged elsewhere, is often one of the earliest occurrences.

Epithelioma of the face above the line of the mouth, certain rodent ulcer forms and a few of the more severe types never or rarely undergo metastasis.

A sponge with its cavities and canals filled with shot would fairly illustrate the pathology of cancer, especially as regards its lack of a limiting wall, the diffuseness of extension. Some of these shot drifting into adjacent sponges would represent metastasis.

Any degree of success in the treatment of cancer can only be attained where the disease is yet confined to a limited or comprehensive area. There is but one rule, and this absolute, governing the treatment, which is remove or destroy all diseased tissues. Any treatment which falls short of this requirement must fail, does often result in added malignance. Stimulating semi- or non-destructive applications are particularly harmful, incomplete excision often worse than useless. Instrumental inoculation of free tissues is often

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the result of careless operating. Following the rule that all disease must be destroyed or removed, the method of treatment becomes to some extent a matter of choice with the patient, in the case of superficial localized disease, or of the physician's preference. The choice should be left to the patient where there is a fair chance of success with one of several methods. In all cases the patient should be honestly and clearly advised and then be given the privilege of deciding, thus removing this much of the doctor's responsibility.

Where there is a reasonable certainty of our being able to include all diseased tissues and a chance of obtaining satisfactory healing, excision is the best of all methods. Where the diseased area is so hemmed in by bone, cartilage or important structures which canot be removed, some other plan may need be chosen. Excision and closure of the wound is practicable and to be favored in epthelioma of the elastic parts of the face, neck and body, provided there is no suspicion of metastasis. Small, presumably localized epitheliomata which cannot, through limitations or patient's objections, be excised, can be cured by the thorough application of caustic potash which has a special affinity for cells of the epithelial type. Pastes, as of arsenic, I have long since abandoned, the prolonged pain not being compensated for by the result obtained. Plasters, as of the perennial, multitudinous quacks, are damnable.

For non-netastatic cases of skin cancer, where excision is impracticable, the X-ray is the best of all treatments and is often all that remains for the hopeless cases. Preliminary curetting or local excision are desirable in most cases prior to X-ray treatment, save where the disease is markedly superficial or where, on the other hand, it is too extensive. I am convinced by my experience of the last three years that, taken as a whole, the total of cancer cases of all kinds receive more benefit in various ways from X-ray treatment than from all others combined. All the smaller and many of the larger localized cases are curable, cation gives no pain, save from burns which at times must be produced; the pain of the disease is often relieved and the scar of healing is the slightest possible.

As regards the superficial, reasonably believed to be localized epithelomata or rodent ulcers, the choice between caustic, cautery, X-ray and knife, or a combination of methods, may be largely governed by the will of the patient. Localized sarcomatous growth may yield with astonishing readiness to comparatively simple management, or it may become virulent in its malignance, even where treated with all possible energy. The result depends upon the type and the thoroughness of treatment. Anything short of the most rigorous and radical measures involves grave risks.

As a rule sarcoma does not do well after caustics, but a single semineerotie open lesion may be cured with an acid caustic, as nitric, or the acid-nitrate of mercury, or the thermo-cautery. Caustic potash is less well adapted to this class of cancers. X-rays often act like magic; again the disease yields only after being most severely burned. Even in the latter case we may hasten metastasis.

I must say in this connection that my experience does not agree with that of writers who speak of the danger that X-ray treatment will hasten metastasis in the carcinomata. It certainly is not true of the epitheliomata.

Carcinomatous growths should always be excised en masse with diseased glands and intervening tissues, where their situation offers fair hope of cure. Knife transplantation must be avoided; the lines of excision must be as far as possible away from visibly diseased borders. Caustics or cautery should never be used on a cancerous growth of any extent with the expectation of a cure. Plasters of quacks, so used, convict the user of barbarous inhumanity. Where there is redundant tissue, it should be removed, even if our chief reliance is to be placed in the X-ray. Radium acts somewhat similarly to the X-rays, is more convenient to apply in some regions, yet too expensive to be had in sufficient quantity for effective use.

There is no internal treatment for cancer save such as renders the patient better able to resist the disease through sustaining or improving the general health.

Probably a majority of cases of cancer which come to the legitimate specialist, or to the surgeon, are already beyond cure. In this class of cases our treatment must either be entirely palliative or solely with the object of giving the pitiable creatures a chance for a little longer life, a little less misery, a fractional percentage of hope for cure. Before the day of X-ray treatment and possibly of radium, these cases were more hopeless than now. An operation on a far advanced case at the patient's request may render the surgeon accessory to suicide. The use of a cancer quack's plaster would be criminal. Caustic and cautery would have the most limited use. X-rays, following where practicable, preliminary removal of all visible disease, offer the best promise of comfort and possible cure.

Certain painful, sloughing or overgrown cancers, may be removed surgically for temporary relief. Smaller lesions may be treated with caustic or cautery for the same purpose, but with greater risk of acceleration of growth. After either, properly comes the X-ray. It is in the far advanced cases that all sorts of "cures" find their field. When finally convinced of the gravity of the condition, the patient begins to grasp at every branch of promise, often the greater the "promise" of the "curer," the less the cure. Ignorant cancer doctors need not be discussed before intelligent physicians. The "cures" usually not only do no good, but they often add to the sufferings of the victim and hasten the ned.

In legitimate practice, scarcely a year passes without the announcement by some honest, perhaps, but over-enthusiastic doctor of a new

cancer remedy with cures published. Of such were the pyoktanins of some years ago, formalin, a new way to use arsenic, even calcium carbide (from which acetyline gas is made); electric treatment, etc. X-rays were heralded as a cure for all, but this superabundant faith has now crystallized into quite well defined knowledge of their certain value as a remedy and the unwarranted enthusiasm of its earlier days has subsided into a reasonable judgment. Radium, radio-active substances, even radium water, appear last on the tragic scene.

And still we have no specific for cancer. A few have more diagnostic ability, perhaps, and the treatment in competent hands is more thorough, but neither in diagnosis nor treatment are the conditions properly met by a large class of physicians.

Knowing the horrors of the disease, the shame in its name, the often loathsomness, the insurance ban in the family history, every physician should view with suspicion and treat either with the greatest tenderness or the most vigorous and radical measures lesions or growths evidently malignant. Above all things, irritating applications and stimulating manipulations must be avoided. Treatment should be absolutely soothing and protective until eradication can be attempted or competent advice can be obtained. Excise, where practicable, with a reasonably wide margin of apparently healthy tissue, including suspicious glands and tissues intervening. Change knives on slightest suspicion of contamination, for fear of transplantation. In operating on open lesions, sterilize the surface, sew gauze over it, if necessary, or thoroughly cauterize before beginning. In using caustics or the cautery, destroy more than the visible disease.

Do not trust X-rays alone, save in the smaller cases, the cases which patients refuse to have treated otherwise and where other methods cannot succeed. In these cases the results will not disappoint as often as with other methods.

Recurrences are the rule in cancer, whether through diseased cells left after treatment or a development de novo in the cicatricially changed tissues. In this latter possibility I have strong belief.

Nodules appearing in the skin at a distance from a cancer, as of the breast, or its former site, are probably secondary lesions and often occur beyond the margins of the widest possible Halstead operation. But even with these recurrences, we shall often have prolonged the patient's life and added comfort to the remaining days, by proper operation.

In those cases where even palliation cannot be expected from severe measures, we must rely upon X-rays when available, cleanliness, supporting constitutional treatment and remedies for the relief of pain.

The suffering victim, doomed to drag out even a few more days or weeks of life and pain, with hope all gone, should be allowed to put his affairs in order and then be kept as profoundly under the influence of opiates or other anodynes as may be necessary for the alleviation of his misery. The time for fear of the morphine habit is passed; morphine, or cocaine locally, and any other means of relief should be afforded, urged ad libitum. The pain will shorten life and wrack the nervous system far more than drugs will injure the patient, and they alone provide the lethe to which he is entitled.

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The Phenomena of a Dream.*

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It has been said by eminent authority that the human mind is never at rest.

It is a fact, or seems to be a fact, that the highest quality of the mind, and the only link which separates man from the lower order of animals does sleep, and sleep soundly.

It is the province of this paper to suggest that reason, the highest and most valuable faculty of the human mind is at rest during our sleep, and even during our dreams, is thoroughly inactive and does not play any part whatever in our dreams. For instance: I dreamed some time ago I was in a swamp fishing and was about to be bitten by a most vicious looking reptile. I thought I was fishing and the vile reptile was so near me I could not get out of his way and could not see in my dream any avenue of escape any way at all.

In the terrible agony of being bitten by this vile monster I awoke to find myself not in a swamp, not on a fishing expedition, but in my room cosily in bed.

I know a young girl who dreamed such horrible dreams as to make her get out of bed and run in any direction, very much frightened of course, until she would awake to find it a dream.

In the dream above mentioned, which I experienced, I suffered as though a monster rattlesnake was about to bite me, until I awoke to find it all a dream. Therefore if a particle of reason could be exerted in a dream we would immediately see we were not fishing in some dense and dismal swamp, but in our beds asleep; and in no danger whatsoever. If our reasoning faculties could be brought into action at all, if we could reason in the least degree, there would be no dreams.

The moment we realized where we were, and what the circumstances about us were, we would see and realize the agony incident to some most hideous dreams, to which so many people are the victims. I have heard people say they have suffered in a dream the effect of murdering people, of being placed in most critical dangers, until they would awake from the mental agony so intense as to actually make physical suffering.

We all know the memory, and in fact nearly all the functions of the human mind, except the reason, are brought prominently into play in a dream. We see people plainly who are dead and have been dead for years.

* Read before the Georgia State Medical Association at Macon.

Our passions and inclinations are brought prominently into action in a dream. We see people, know them, talk to them, and many of us have had dreams so real as to be in the presence of, and enjoy the company of, those a thousand miles away. A moment's reason would teach us "it's all a dream." Therefore I say, why is it that the memory, the hearing, sensations—even the prejudices of human beings—can be vividly brought into play and not one spark of reason can be elicited, and not one thought based on reason can be evolved in the brain of the most brilliant man. Though while he dreams he uses his fine memory, and almost if not entirely, every other faculty of his mind, except the reason, that faculty alone, which separates us from lower animal life.

If every faculty of the mind should sleep as does the reasoning faculties, we would not dream at all, for as soon as the vivid picture was being painted on the horizon of our minds we would know at once we were not on a fishing expedition, or being gored by a vicious cow and neither were we in the presence of weird music and angels, but asleep in our beds.

We would at least know we were not yet either in Hades or Heaven. Reason, therefore, would annihilate dreaming, and the question is, why is every other function of the human mind entirely active in a dream except this great function we call reason, making us in our most profound slumber, have either pleasure or pain, as the dream may be pleasant or painful in character?

Certain it is, if one atom of sound reasoning could be elicited it would all be a dream indeed. The reason therefore sleeps and sleeps soundly, and the man or philosopher who says the human mind is never at rest does certainly err, and err most greviously.

The highest faculty of the mind and the only one which separates us from a monkey, does sleep and sleeps soundly, even when all other mental functions are merely dozing.

We may in our sleep go back through innumerable years, may visit kings and queens and principalities, but the reason is asleep, and cannot be disturbed until every other faculty of the mind is entirely and thoroughly awake.

The conclusion is inevitable: When there is reasoning there is no dreaming.

Gynecology in the Insane.*

By Lindsay Peters, M. D., Columbia, S. C.

In recent years our conception of insanity and our ideas as to its proper treatment have undergone radical changes. Doubtless within the memory of some of the gentlemen present it was no uncommon sight in the asylums to see the subjects of various forms of mania chained and isolated like the criminals of ancient times. Today in the best-equipped institutions for the care of the insane not only is any form of mechanical restraint rare, but there are, indeed, no cases so unmanageable that they cannot enjoy the society of their fellow-unfortunates, exercise in the open air and other conditions furnishing diversion and tending to upbuild the general health. These reforms in the treatment of insanity have been brought about as the result of a right understanding of the mental conditions, the victims of these affections being no longer regarded as possessed of the devil nor as necessarily afflicted entirely beyond the hope of recovery; on the contrary, the fact is appreciated that often, where it is possible to remove all influences detrimental to the general health, the mental as well as the physical condition is improved or cured. The key-note to the modern treatment, then, is the building up of the general health—the removal, as far as possible, of any conditions which may have a direct or indirect exciting influence upon an unstable mental and nervous system.

The intimate association of certain organs remote from the brain with mental and nervous phenomena manifest the importance of such organs as possible factors in the causation or aggravation of mental and nervous derangements. Conspicuous among these are the kidneys and the organs of generation. The large proportion of insane patients having nephritis and the intractable neurasthenia, or even mania, often associated with displacements of the kidneys, are more than suggestive of the vicious influence which these affections are capable of exerting upon the brain and nervous system. Even more marked than this is the interrelationship of the generative organs and the brain, as manifested by the normal effect of these organs upon the emotions in performing their functions and the severe mental and nervous disturbances which often follow the abuse or perversion of their functions. These familiar facts concerning the generative organs in a state of health are powerfully suggestive of the important influence they may, when the seat of disease, exert upon an unstable brain by acting as a source of irritation or intoxication, thus initiating or perpetuating certain forms of insanity.

As supporting these ideas, I wish to cite, as briefly as possible, a few observations made during a 15-months service as resident physician of the insane department of Bay View Hospital, Baltimore, Md. The following epitomes of cases are given from memory, but are accurate as far as they go:

Case I. Chronic mania. A negress who had been in the asylum since early womanhood. As only meagre records were kept at the time of her admission, nothing could be learned of her early history, nor could her age be definitely ascertained. She appeared to be a woman of about 42 years, was generally noisy and talkative, but only at intervals of several weeks became violently maniacal. She was much demented.

In this patient there was a complete prolapse of the uterus and vagina, the vagina

*Read before the South Carolina Medical Association, at Darlington, S. C., April 21st, 1904.

hanging outside of the vulva as a sack which contained the entire womb. She menstruated irregularly, and her spells of intense maniacal excitement were very frequently coincident with the menstrual period. During these attacks she often cried violently and complained of pain in the womb and pelvis. Examination at such times showed great enlargement and congestion of the structures protruding from the vulva. On account of the apparent aggravating influence of the prolapsus upon the mental condition, I undertook to correct the uterine trouble by operation. The enormous distension of the vaginal outlet required an extensive resection of the redundant tissues. She took the anesthesia (ether) badly, and after completing the repair of the relaxed vaginal outlet, my original intention of also performing ventral suspension of the uterus was abandoned. She was kept in bed for two weeks by means of a stout canvas sheet stretched over her body and laced to the bed at both ends and sides. Perfect primary union of the perineal wound was secured, but as the patient could be kept in bed only by the use of mechanical restraint, she was allowed to get up at the end of two weeks. For about four weeks afterwards a marked improvement in her behavior was noted by her attendants and the patient herself, who spoke quite rationally at times, said she experienced relief from the operation. However, the heavy uterus, being unsupported, soon worked its way down again, dilated the vaginal orifice and completely prolapsed. The mental condition thereafter continued as before operation.

Taking into consideration that this case, owing to the long duration of the mental disease and the resulting dementia, was a very unfavorable one, the improvement in her condition during the time that the prolapse was relieved was regarded as encouraging. An effort was made to support the uterus by means of pessaries of various kinds, but without success.

Case II. Chronic mania, with epilepsy. This patient was a very obese woman, about 40 years of age, weighing nearly 200 pounds. She was noisy and very troublesome. She had had epileptic convulsions since childhood, and had been maniacal for several years. During one of her usual attacks of violent shouting and crying she complained of pain in the abdomen, and on examination a ventral hernia as large as two fists was discovered. It was not strangulated, and was easily reduced, the hernial ring being quite large. Beneath this was a hard, solid tumor (evidently a myoma) which reached almost to the umbilicus. Having obtained the consent of her relatives, the tumor, together with the uterus, tubes and ovaries, was removed by abdominal section. In closing the wound no attempt was made to cure the hernia, as the abdominal muscles and fascial were extremely thin and retracted and would have required extensive resection of the skin and dissection of the fascial—too extensive a procedure to be undertaken, weighing the advantages to be gained against its danger after the difficult hystero-myomectomy, complicated by bad breathing under anesthesia, due to extreme obesity. After the gauze dressings had been applied the entire abdomen was encased in a plaster-of-Paris dressing, well padded to prevent excoration of the skin. The patient was kept in bed without mechanical restraint. There was no complaint of the plaster dressing, and on the 10th day it was removed, the wound having healed by first intention throughout its length. Convalescence was altogether uncomplicated, and the patient sat up at the end of three weeks. The ventral hernia persisted as prior to operation. The patient was quiet and tractable, and there was no return of the epileptic seizures for more than a month after operation. During the remainder of my service (about a year) this woman remained in every way a better patient and her convulsions were less frequent than prior to operation.

Case III. was a little hunchback, 4½ feet tall. She had borne three children by instrumental delivery, the youngest child being two years old. For the past year she had been subject to periodic mania. Between the attacks she was quite rational, though always irritable and somewhat quarrelsome. Since the birth of her last child she had suffered from dysmenorrhea and severe occipital headaches.

Examination revealed a considerable laceration of the perineum with resulting relaxation. The uterus was retroflexed, but not adherent, the lateral structures free and normal. At her request and with the consent of her husband, the perineum was repaired and the uterus suspended. No restraint was necessary after the operation, and convalescence proceeded normally, with perfect union of both perineal and abdominal wounds. During the third week of convalescence a severe bronchitis sent the temperature up and for several days it ranged between 100 and 103 degrees F., after which she slowly regained her strength. There were no further maniacal attacks, and about two months after operation she was discharged from the hospital. I saw her at her home from time to time, and her mental condition had remained good up to the end of my service—about eight months after operation.

Case IV. Chronic delusional insanity. This patient had been in the asylum several years. She was a mulatto woman about 30 years of age. At times she was very quarrelsome and pugnacious, though generally morose and quiet. At each mentrual period she was bent forward with pain in the pelvis. By vaginal examination a pelvic inflammatory mass was felt to the right of the uterus. Abdominal section was performed and the right tube and ovary, which were closely bound together by old, dense adhesions, were removed.

The abdominal wound healed perfectly, and convalescence was rapid. During convalescence and for about a month afterwards her mental condition was so much improved that plans were being made for her discharge,

when she suddenly relapsed into her former morose, sullen state and so remained, in spite of an improvement in her physical condition, as shown by increase in flesh.

Of these four cases, there was temporary improvement in two, in one permanent improvement and in one recovery.

Although these results are in accord with what one has reason to expect on theoretical gounds before mentioned, and hence encourage further investigation, I do not claim that one's experience is so few cases would justify any very positive conclusions as to the beneficial effects of surgery upon insane women suffering from gynecological diseases. However, as so little work along this line has, as yet, been published, I have thought the above cases of sufficient importance to report.

One finds that, as a general rule, specialists in mental diseases discountenance major surgery for their patients; their views are pessimistic as to the value of surgery in the treatment of insanity, and consequently comparatively few hospitals for the insane are equipped with a well-furnished operating room. It occurs to me that this prejudice has probably been brought about by the reprehensible practice, so much in vogue two or three decades ago, of promiscuous castration of insane women, whereby many female insane were uselessly mutilated. This practice cannot be too severely condemned, and has long since been abandoned.

Hobbs, of London, Ont., and Manton, Henry, Doolittle, Moore and others in the United States have claimed to have found pelvic lesions in a large proportion of insane women admitted to the asylums, a fact which I have verified by my own observations. Now, it must be conceded that many insane women are capable of suffering from pain, reflex disturbances and other harmful effects of these lesions, just as is the case with women of sound mind, and hence it follows that cases must exist in which operation is indicated for the relief of suffering, even though the mental condition be not improved. Since the health of women of sound mind is not infrequently seriously affected by unsuspected pelvic disease, one can imagine how often such lesions in the insane must be allowed to go unnoticed unless sought for.

I wish to recapitulate and emphasize the following points:

Lesions of the pelvic organs, when sought for, are found as frequent complications of insanity in women and may, in some cases, bear an important relation to the mental state.

In those cases of insanity complicated by pelvic lesions which appear to be closely associated with the mental derangement or to cause suffering in any manner, operation is indicated unless profound dementia, senility, paralysis, extreme debility or other hopeless conditions exist.

The post-operative difficulties of operations upon the insane are not insurmountable, as shown by perfect healing in all of my cases.

I am conscious that my subject has been but superficially and imperfectly treated in this paper; however, if it should encourage further trial of the effects, in favorable cases, of the correction of gynecological surgical disorders in insane women, its mission will have been performed.

"Placenta Previa."*

By Geo. L. Harbour, M. D., Vossgurg, Miss.

To me there is nothing so appealing, so demanding and drawing upon the skill and ability of a physician as that of having to face and manipulate, successfully, a case of placenta previa, so as to first protect patient, child and reputation. As a general thing, we have no warning of the demands which are going to be made on the part of nature, and the accoucheur, till we appear at the bed of actual scene—and that, too, to see the life-blood of the patient wasting away from her in jets which are alarming from the start, which demands of the accoucheur every power of his skill, in order to meet the requirements of nature, so that life may be sustained and prolonged. On examination, we find one of three things to exist—viz: First, a marginal placenta previa; second, a partial placentra previa (similuna, so to speak); third, a complete overlapping of the placenta, over the os internum, or a complete placenta previa. Now, we realize at once, almost in a moment's time, the nature of the case before us, and, to say the least of it, naturally suspect a premature delivery, as about only one-third of the cases of this nature reach full term. Generally the last twelve weeks of pregnancy seem to be the most favorable time for the occurrence. Of course the hemorrhage most always marks the date, and that too in proportion to the encroachment of placenta over os internum; the greater the encroachment the greater the hemorrhage, as well as the danger; and less the placenta previa the more liable the case will approach full term, and vice versa. Now we are up against the danger line. First, the liability of the death of child from premature delivery; second, hemorrhage; third, compression of cord during version, and its insertion near margin of placenta; fourth, septic infection and puerperal fever, getting its origin from the breaking up of morbid adhesions of placenta, which is most liable to occur in premature cases, as the tissue changes in the utero-placental junction are normally preparing for separation at full term, which has not yet taken place.

Sometimes, before labor sets in or is even suspected upon the part of the patient, she may give the history of having had a slight or profuse hemorrhage during sleep, or while attending a call of nature, without any apparent cause; now, at this point, it is well to take notes and compare them with the next show of blood, as to the amount at each

*Read before the recent meeting of the Mississippi State Medical Association at Jackson, Miss.

time, and the intervals between each occurrence of hemorrhage, and by this observation you can most every time tell whether the placenta is completely or partially overlapping the os, thus affirming to a great extent your diagnosis, before dilatation of the os is made sufficiently to allow the introduction of one or two fingers to affirm the same. Furthermore, the less the hemorrhage the more favorable the presentation, for in marginal cases the blood may be arrested from rupture of membranes and compression of bleeding surfaces, by the presenting head, which is most always accompanied by feeble labor pains and slow dilation.

In cases due to blood-loss, syncope, restlessness, feeble pulse, cold extremities, vertigo, headache, double vision, convulsions, etc., mark the fatal symptoms which draw the patient nearer the danger line, thus abandoning your earnest efforts and anxious entreaties, which transforms your patient into that deep slumber, called death. It is not well to rely exclusively on the appearance of hemorrhages in suspected cases of placenta previa, as the affirmative diagnostical point, but make inquiry into the history of the case, for you are liable to be deceived, in your earnest belief and unshakable confidence in self-ability, for I know one patient who not only menstruates regularly through one term of her gestation, but through every one, and does not menstruate at all when not pregnant; but only when pregnant does she menstruate, and this is the occurrence each month until child is born, and then no more until pregnant again, and then a repeater of the regular menstrual period, till birth takes place. This woman enjoys perfect health all the time, and gives birth to fully developed, healthy children. She is now the mother of six, all of whom are living and in perfect health.

Of course this case is an exception to the rule, as we all know, and, but for this, we could always rely greatly on the hemorrhage in such cases as a sign of placenta previa.

So in all cases it is well to confirm your diagnosis by vaginal examination, passing the finger into the os. The spongy texture of the placenta is easily recognized. In the primipare, this process may prove difficult or impossible, but one side of the lower segment of the uterus may be felt through the vagina to be boggy, soft and enlarged, especially where placenta is attached; affirmed by the pulsating arteries in same. The stethoscope here applied is no good; you must touch and recognize the placenta with the examining finger, which is almost if not impossible to accomplish till after the fifth month of pregnancy. As to the prognosis in these cases, to say the least of it, it is extremely grave in all cases; but as I have mentioned above, the outlook is far greater in proportion to the overlapping of the os, by the placenta.

In complete cases two out of three are born dead, while others soon succumb a short while after birth.

As to treatment, the first thing to do is to deliver, as soon as possible, whether the child be viable or not.

In selecting any method for a special case, the conditions present must first be fully considered. First of importance is the degree of dilatation of the os and cervix uteri. If found closed, you must hasten dilation by sweeping the finger around mouth of os, thus aiding dilatation and increasing force of pains; and, should they be absent, this manipulation will augment them.

I think the tampon at this stage is a nuisance, for it only acts as a temporary relief in controlling and concealing the blood. The pains, if absent, may be brought on or restored by the finger, which acts as a plug, the same as the tampon, which is in the way. Now, as soon as possible, introduce one or two fingers into the cervix, and clear up, if possible, the presentation and the condition or position of placenta, as to whether marginal, similuna or complete; if marginal, sweep one finger around edge of same, and feel, during pains, for the presenting part. If the head be presenting, continue to introduce one finger after another until you can introduce the whole hand; in the meantime double the loose part of placenta back upon itself, and thus control hemorrhage; now reach for a foot, and when secured, perform prodalic version, with the "bipolar" method, and bring the feet down to act as a plug; at the same time keep the placenta folded on itself, and make traction on feet, with each pain, so as to keep enough pressure against the placenta, so that it cannot unroll. By this means you control the blood, with the child acting as a tampon, and also hasten delivery. Usually it takes about one hour to make the delivery, with all safety to mother and child. This treatment applies to marginal and partial placenta previa (similuna). Now, in the partial and similuna cases, where the head is presenting rapidly, from the force of each pain, you may control bleeding to the extent that the patient will be safe in relying on a head delivery, with the assistance of forceps, provided a multiparae; if a primiparae, never delay in turning, if possible. If you do, you will be most sure to lose the babe, and your patient will be completely exhausted.

If you are compelled to use the forceps, before you are ready to make traction, one blade, on the side you have loosened placenta from uterus, should be introduced and kept in position till traction is ready to be made by both blades. This alone hastens contractions and keeps up almost a continued pressure against the detaching placenta, and lessens the waste of blood and saves a waste of time in applying the proper aid to delivery at the time most needed. This treatment, with the one blade in position, will also hold good under the same manipulations as mentioned above. I would suggest that the male blade be introduced first, so as to secure firm locking of both, when the female blade is applied just as you would in any case, thus saving trouble and time.

In complete cases of placenta previa, I would most surely perform prodalic version in all if possible, for the hurried delivery demanded just at this point, if to be made with forceps, is liable to inflict damage to peritonaeum, and thus increase the graveness of the case, from a greater loss of blood, should laceration occur.

In cases where the child is dead, or not viable, or pretty sure to die, from prematurity of the labor, or when great exhaustion, on part of the female, and the state of pelvis and soft parts in her particular case contra-indicates delivery by version, Simpson advises a complete separation of placenta, and trust to contractions to complete the delivery. To this, however, I do not agree, for the reason that, in the first place, the child has absolutely no chance, and, furthermore, the patient is already exhausted, and needs help and rest; so the thing to do is to continue to bear in mind the life of the child and deliver the mother of same with forceps, if possible, and just as quickly as possible, if the os is sufficiently dilated for the appliance of same. Of course no special rule can be followed for the exact treatment of placenta previa in every case; your success will depend largely if not altogether upon your judgment, skill and self-possession. The only rule I can suggest, which will hold good in any and all cases of placenta previa, is to think fast, work quickly and continually, from beginning until you know that both mother and child are safely over the line of danger; work earnestly and faithfully, with this point in view, and if you save the mother every time you should feel proud, and should you succeed in saving both mother and babe, you should feel very proud. You need not bother about your reputation, then, for it will take care of itself.

After the child is born, I then intrduce my hand and press it, folded up, against the fundus; and, with the left, I knead the uterus, and at the same time make counter-pressure from both ways, so as to secure firm contractions, and remove, in front of hand, as withdrawn, all clots and debris into the vagina, and from there to bed-pan, thus controlling hemorrhage, from the firm contraction, which I readily secure, and also guard greatly against uterine inertia, or th recurrnce of a hemorrhage from the same, should it occur.

Now, I put on a broad, well-fitting abdominal bandage, as tight as is comfortable for the patient, so as to sustain my firm contractions, and make my patient more comfortable.

I now give ergot, in teaspoonful doses, several times a day, and so continue, lessening the dose each day, after the first, till I know there will be no recurrence of hemorrhage. Now I have the patient take, twice a day, a two per cent. carbolized douche, as hot as can be borne, which I have continued for a week or more, as the case may require, so as to guard against sepsis, etc.

Should any oozing of blood appear from the lower segment of uterus, after firm contraction, I swab the bleeding surface, through a speculum, with a solution of styptic iron, and give internally ergot and tr. chloride iron, of each 10 drops, in water, three or four times a day, which has never failed to give satisfactory results in all cases of the kind.

"The Country Surgeon and His Nurse."

Mr. President and Gentlemen of the Association:

In casting about for a suitable subject upon which to write a paper for this section I must confess that I found myself at sea.

This was true for the simple reasons that those subjects upon which I might have written something have been presented to this association so often and so much that it would have been an intolerable trespass upon your time and patience for me to present them again, and those subjects which are engaging the attention of surgeons today, and which would be of special interest to you, such as the surgical treatment of nephritis, the surgery of the gall-bladder, the diagnosis and treatment of osteo-myelitis, the best methods of nuturing wounded intestines, etc. I felt myself incapable of handling. I have therefore endeavored to secure the promise of others more capable than myself to prescent papers on some of these subjects. The success attending these endeavors will be evidenced by the papers which will be read in this section for your consideration.

The few moments that I shall consume of your time this morning I shall devote to a subject that is of interest to us country doctors specially and particularly those of us who attempt to do a little surgery occasionally, emergency surgery, or such as is forced upon us at times.

We all understand that strictly speaking there is no such person as a country surgeon, but that every country doctor must of necessity at times transform himself into a surgeon, pro tem. He is brought face to face with surgical work that must be done and done at once. It cannot be put off. There is no time to send for a surgeon and no time to send the patient to one. The work must be done then and there.

As I use the term "country surgeon" or "country doctor," in this paper I mean to include not only those who practice in the country proper but also those who practice in the smaller towns as well, and all those who have not hospital advantages and conveniences; those who can neither carry nor send this class of work to a hospital or sanitarium.

The surgeon's most valued and valuable assistant, the one most indispensable, is a good nurse. I would rather have a good nurse to assist me in a surgical operation than to have another medical man if I could only have one or the other. She would be of more real help to me.

The greatest inconvenience that country surgeaons have is, and it often amounts to an

*Read before the Mississippi State Medical Association, April 22nd, 1904.

almost insurmountable obstacle, is the deplorable lack of good nurses.

Graduate nurses are a great institution. I wish that there were more of them. They are indispensable in hospitals, and in private practice with people who can afford to employ them; but there are a great many people who need their services, who unfortunately, are not able to employ them. Often these are good people, good citizens, and among our best patrons. But these people cannot secure the services of a trained nurse for two reasons. First they are not able financially. Second, it would take too long to get one to the patient for we would have to send off to some city to find one. Then the question naturally arises, what is to be done?

Let me imagine a case right here; and I venture that most of you will recognize it as a true picture, especially those of you who live in the country. You are called to see a patient three or four miles from your office. When you reach him you find that he has a strangulated hernia, or a mangled limb done by some machinery, or a gun shot wound or something equally as bad. Maybe he is almost dead from loss of blood and shock. The patient is in a critical condition and you are in an embarrassing situation. You are three or four miles from your office and your instruments. The surroundings are exceedingly unpromising. Everything is very unsanitary. You have no help at all except a lot of nervous people who have gathered there through sympathy or curiosity. Now then, whom would you most like to have with you just at such a time? Of course a good nurse above al others. But one is not there and you must organize your help from the miscellaneous crowd around you. You must develop impromptu nurses from material utterly unfit for such work. And after you have selected the best help available, you must personally supervise every thing that is done, and even do the most of it yourself. You must find a suitable room and often that is hard to do. You must have it emptied, cleaned up and made ready for the reception of a surgical case. This is often no small task. You must have the patient cleaned up and made ready for a surgical operation. You must get your instruments the best way you can.

You yourself must sterilize them and arrange them as you want them for the operation. You must prepare and sterilize towels, dressings, etc. You must sterilize a quantity of water and put it in vessels convenient for use. You must do the best you can for an operating table and for small tables for your instruments, etc. And remember now, that you have no nurse that you can depend upon and that you must do most of this work yourself, or at least, supervise it personally.

But the most painful and humiliating feature of the situation I've just described is the fact that you realize fully that the country surgeon's nurse is a myth. She is an abstract quantity. She does not exist. You may dream of nurses; you may read of them in books and journals; you may even see them about hospitals, and in the cities, but when you are in sore need of their services out in the country they are not there. And as a result of their absence many an operation is not done which should have been done; and I doubt not that many lives have been lost for the same reason, and possibly some of these valuable ones. It is always a source of satisfaction and gratification to the doctor to have a good nurse with his patient. It saves him work and very often worry. It adds so much to the patient's comfort and chances of recovery. We all will agree that the presence and attention of a good nurse often determines the fate of a patient.

But it is not necessary for me say more to impress upon you all the need and the unfortunate lack of nurses in the country. We all realize these facts fully.

Now, then, Mr. President, I come to the main point and the chief object of this paper. We want more nurses in the country, cheap nurses, those who can afford to work for from $5 to $10 per week. The necessity for such nurses has become imperative. We need them and we must have them; but where are they to come from, and how are we to get them? The time is passed when a man or a woman can, or should be expected to leave his or her own work or business to go and
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nurse a sick neighbor. Besides such nursing is very unsatisfactory to both patient and physician. It is especially so in surgical cases for these cases often require constant, careful and skillful nursing. The wellfare of the patient so often depends on the nurse. Then I repeat that we must have more nurses in the country. We cannot do without them. They are an absolute necessity.

I have this suggestion to make: Let every physician who feels the need of such nurses take upon himself the task of training two or three young women for this work. There are plenty of them who would make fairly good nurses with some training who would not care to take the regular course of two years in some hospital or who could not do so if they wished. It would be a graclous act to give these young women respectable work at a fairly good remuneration. It would be advantageous to physician and patient. You can take any intelligent young woman who has any tact for such work and soon teach her to count the pulse and respiration, take the temperature, to observe and note symptoms, etc., and to keep such records as is usually necessary to be kept. They can also be taught the meaning of surgical cleanliness; to prepare a patient and operating room for a surgical operation, to prepare and sterilize towels, dressings, instruments, tables etc. They can even be taught to administer the anesthetic in cases of emergency.

And in conjunction with your instruction have them to get some good practical work on nursing, and read and study it. Occasionally you might examine them to see whether

they intelligently understand what they are reading. If you will adopt this plan I think that in a few months or a year or two you will find that you have pretty fair nurses right at home and at your command at any time. And those who will answer every purpose in the great majority of cases. Of course when you had any special work to do for a patient who could afford it you could get a graduate nurse. The development of the class of nurses I am suggesting is for the benefit of those who cannot afford to employ graduates. It may be that if any graduate nurse should happen to read this paper she would not endorse it. She might say that I discourage young women from taking the regular course of training for this work; that I would supplant the regular graduate nurse with untrained ones. But let me say right here that nothing is farthed from my purpose. I would not supplant the graduate nurse. I wish that we had more of them. I wish that I could get one to nurse every one of my patients. But if I can't get a graduate nurse must I do without any nurse at all? Must my patient suffer for lack of a nurse because he is not able to employ a graduate. This would not be humanitarian.

I believe that most graduate nurses are noble, true women; and don't believe that many, if any, of them would take this selfish view of the matter. Besides, I believe that such a course would have exactly the opposite effect. It would create a greater demand for the services of the graduate nurse. More than this it would develop among these home-trained nurses an ambition to go higher. They would not be content, many of them, to continue to work for $5 to $10 per week when by taking the regular course and graduating they could get from $20 to $25 per week. I believe that it would do more to increase the number of graduates than any othre plan. It would soon fill the training schools with good material. It would be a kind of preparatory training for the regular course. They would know before they entered the training school something about what it meant, and not so many of them would be sent back to their homes after the few weeks of probation.

I hope that these suggestions will not be in vain, but that physicians over the country will do something along this line.

J. T. B. Berry, Brandon, Miss.

Treatment of Hernia in Young Children.

McAdam Eccles in The Hospital, London, says that, while there is often a congenial condition predisposing to hernia, it is nearly always requisite that there should be an acquired factor. In most cases these two causes are a processus vaginalis and increased abdominal pressure, the outcome of intestinal distension. Hence the rational treatment must be the removal of both causes. Proper dieting will often prevent distension by intestinal gas. There is a tendency for the processus vaginalis to close if it is not kept patent by the descent of viscera. This can often be prevented by the use of a truss for three years. Failing this, an operation is required.

Unless the hernia is strangulated, it is best to wait till the early stages of first dentition are passed. Any hernia which contains irreducible contents calls for operation. Umbilical herniae which have not disappeared before the age of three are suitable for operation. An undescended testicle with patent processus vaginalis is also an indication for operation.

With regard to the operation, care is required to prevent contamination with urine and faeces. The author prefers biniodide of mercury for cleansing the skin. The bowels should be opened by a mild aperient the morning before the operation, and no enema should be given.

In the case of umbilical hernia, an incision should be made laterly half round the umbilicus and the flap raised with the scar of the naval. The protruding peritoneum should be cut away and the edges united with silk sutures. The edges of the two recti muscles are then incised and the muscles united with silk or silkworm gut.

For inguinal herniae an incision is made well away from the scrotum and parallel to Poupart's ligament. The external oblique muscle is incised and the canal exposed. The ilio inguinal nerve in front of the sac should be avoided. The neck of the sac is then carefully dissected free from the cord. The bladder, which may lie close to the inner side, must be avoided. The sac being opened is transfixed and tied with silk. The neck of the sac is cut below the ligament and the rest of the sac left undisturbed. The external oblique is sutured and then the skin. No truss is required after the operation. When carried out aseptically, a permanent cure is the result.

Metabolism in Pregnancy.

Slemons, at a recent meeting of the Johns Hopkins Medical Society, read a paper reporting his results of studies of four women whose metabolism was followed for about thirty-nine days. The author said the diet was carefully regulated and weighed; all the excreta (including urine, lochia and milk) were carefully measured and daily estimates were made of the amount of urine execrated and the total nitrogen and ammonia output. The series showed a definite diuresis just before and just after delivery. All the cases showed a tendency of the mother to store nitrogen during pregnancy, and the patient who bore live twins emphasized this tendency. The series also showed that during pregnancy there is a tendency for storing up ingested fluid. The ammonia excretion shows definitely that a fetus in utero causes changes in the mother's metabolism. It drops to normal after delivery and tends to become normal when the fetus dies in the womb. Relative suppression of renal activity explains the

changes in the amount of excreted urine during and following labor. The diminution of nitrogen output is probably due to impairment of the kidney cells. The high ammonia output at the time of delivery cannot be explained. During the puerperium all the patients in his series showed a definite diuresis, except the one who bore twins. There was a rise in the nitrogen output, usually beginning about the second day of the puerperium, and probably due to regressive changes in the mother. The series showed that metabolism tends to assume a non-pregnant type when the fetus dies in utero.

Acetozone as an Intestinal Antiseptic in Typhoid Fever.

Frederick G. Harris, in the Therapeutic Gazette, reports 128 cases of typhoid treated with acetozone. The first cases seemed to indicate that the epidemic was of a mild form, but later the disease proved to be of a severer type and complications were numerous. He obtained the most satisfactory results with aqueous solutions of 15 grains to the quart which the patients were urged to use very freely to quench the thirst, while in addition four to six fluid ounces of the solution was given every four hours as a therapeutic measure. The movements of the bowels were regulated with sodium phosphate or magnesium sulphate.

The temperatures of the patients, on admission, were high, as a rule. In 117 cases under acetozone treatment the average duration of the fever was eighteen days.

91.4 per cent, while 11 patients died, a mortality of 8.59 per cent; statistics of the cases of typhoid fever in the same hospital (Cook County), not treated with acetozone show a death rate of 13.1 per cent. The author is of the opinion that under the acetozone treatment, in favorable cases, the duration of the disease was materially shortened, and the most disagreeable symptoms were ameliorated. The author believes that the characteristic fetor of the stools and the peculiar odor of the wards was greatly diminished; there was less stupor and delirium and less typanites, and, the usual diarrhea was checked. An average of 138.12 grains of acetozone was used in each case. Finally he reaches the conclusion that when cases can be seen during the first week of the attack and large amounts of acetozone given, assisted by a gentle laxative, the temperature will return to the normal in from ten to twelve days.

Four cases of typhoid fever, in which acetozone was employed with satisfactory results, were reported by Charles Emil Brack, of Baltimore, (Medical Age, January 25). In each case the treatment consisted in the use of acetozone in solution. The first three patients, adults, received 30 grains of the drug per diem; the fourth, a child of 4 years, received 8 grains each 24 hours. Prompt recovery occurred in each case.

James Billingslea, of Baltimore, (Atlanta Journal-Record of Medicine, February, 1903), reported twenty-five cases of typhoid fever treated, diagnosis confirmed by board of health examinations. The treatment consisted in clearing the bowels thoroughly by means of calomel. Liquid were used as occasion required. The special treatment consisted in shaking 15 or 20 grains of acetozone powder with one quart of water, allowing the insoluble residue to subside. The patient was given the clear solution to drink freely, the whole amount of one quart being taken during twenty-four hours. The writer suggests that one part of the acetozone solution may be mixed with three parts of milk if thought desirable. The action of acetozone will be materiallly aided by the use of a mild saline laxative.

He found that the feces soon lost their disagreeable odor by this treatment, and cold baths were required to a much less extent than with other treatment. Furthermore, the nurses universally affirmed that they found patients under this treatment easier to care for. No evil effects were noted from the use of acetozone.

A further contribution to this subject appears from the pen of J. J. Driscoll, of Chicago, (The Kansas City Medical Index-Lancet, January, 1903), who relates his experience in six cases. He found that acetozone reduces the temperature, shortens the duration of the disease materially, while it does not seem to have any ill effects on the heart. The feces are completely deoderized in 48 hours and tympanites rapidly disappear.

[We have used this drug in about thirty cases and it seems to be inferior to Salol as an inttesinal antiseptic.—Editor.]

Pregnancy Following Nephrectomy.

J. F. Baldwin (Cleveland Med. Jour.) reports two cases in which pregnancy has occurred after the removal of one kidney. Three cases have previously been reported in a paper by Bovee, these making a total of five. In the first case, pregnancy occurred seven years after the operation; the patient died of tuberculosis of the other kidney one year and nine months after delivery. Case two was operated upon by Schramm in 1891; she was delivered four years later and made a normal convalescence. Case three was operated upon March 18th, 1901, for pyonephrosis and had a child April 15th, 1902. Except for albuminuria convalescence was normal. The first case of Dr. Baldwin had a kidney removed in 1898, was later married and safely delivered in 1901. She died of typhoid fever a few months later. His second patient was operated upon in March, 1900, and was safely delivered in September, 1901. Her health is excellent. He concludes that in spite of the work thrown upon the remaining kidney by pregnancy, the prognosis after nephrectomy, if this condition supervenes, is by no means unfavorable.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -
- - - - - - - - - - - Charlotte, N. C.

The Medical Society of the State of North Carolina.

The fifty-first annual session of the North Carolina Medical Society was held in the City of Raleigh, May 23, 24 and 25. This was one of the most notable State Medical Society meetings ever held in the South. Four hundred physicians were in attendance. Never before in the history of any North Carolina Medical Organization were so many physicians gathered together at any one time. The programme was a long and interesting one, made up of some of the most scientific and carefully prepared papers ever presented to this State Society.

Dr. Weaver's address showed evidences of learning, thought and research, culture and intellectual power. It was a magnificent effort replete with good and timely advice. His suggestions bearing upon the necessity of establishing sanatoria in the various parts of western North Carolina for the treatment of consumptives were timely and something which deserves the attention, really the serious consideration, of every class of our people throughout the State. He resented in strong terms Judge Clark's uncomplimentary references to the medical profession which were incorpated in the decision of the Biggs case. His statistics touching upon the death rate due to tuberculosis in this state should be known to every individual within its borders. We can hardly realize that one-seventh of all of the people who die in North Carolina are killed by tuberculosis and that one-third of all the people who die in the state between the ages of fifteen and forty die from this disease.

Dr. Way's report was a remarkable one. It shows that we now have over a thousand members who have paid their dues and are entitled to all of the privileges of the Society. A year ago the members who were entitled to the transactions did not exceed three hundred and fifty. What is the cause of this? It demonstrates unquestionably the advantages of our new plan of organization and the proficient work done by Dr. Way and the councillors of the various districts. Every one seemed to be enthusiastic over the great improvements made in the Society, its wonderful growth and the many evidences of interest among its members. Those who seem to be indifferent are certainly those who have not studied the advantages which this new plan presents.

Raleigh was an ideal place for this meeting. We were hospitably entertained and on every side we were received with the greatest courtesy and cordiality.

The address of welcome was delivered by Dr. B. F. Dixon, State Auditor. Dr. Dixon is known all over the State as one of our most eloquent orators. His address was well received. Dr. Parrott's response to this address was full of beautiful thoughts and expressed in an exceedingly attractive style.

It was found that the establishment of the house of delegates was a great improvement over the old regime. Even after all of the business matters were eliminated from the scientific and general meetings they were then too full, extending over the entire third day without the usual recesses or intermissions. This meeting demonstrated the necessity of still further divisions. When the programme exceeds forty papers as it did this year, and as we expect it to do in the future, it will necessitate the establishment of a section on surgery. Even then the general meetings will be full enough.

There was no feature of the entire meeting which entertained the writer more than the oration delivered by Dr. C. A. Julian of Thomasville. His subject was "Aeseulapian Dreams." He followed up from ancient medical history to the present time the progress made in the medical and surgical sciences. And really it would have appeared a few centuries ago like a foolish dream for anyone to have described then, medicine and surgery, as it is today. Dr. Julian is indeed an orator. No one in the Society could have made a better impression than he did. He entertained, and entertained beautifully, a large and intelligent audience.

The Society goes to Greensboro next year. No better choice could have been made than this beautiful and progressive city. It possibly has better facilities than any city in the state for entertaining the physicians. It has a great many new and up-to-date hotels, and halls large enough for all of the meetings. It is centrally and accessibly located.

Dr. D. T. Tayloe, of Washington, N. C., was elected president for the coming year. This was in every sense a proper selection. He has been a popular and active member of the Society for a great many years. He will discharge the duties pertaining to this high office in a dignified and impartial way. In making this choice the Society has honored itself.

We would feel remiss in our duty if we were to omit the mention of the many expressions of appreciation heard concerning the proficient work which has been done by the secretary, Dr. J. Howell Way. As we have said before, he is the right man in the right place—always elegant in his manners, always respectful to every one with whom he comes in contact. At this stage of the new organization when its workings at all times are not smooth we need a master of the situation and in him we have one. Upon several occasions in the house of delegates if it had not been for his power and influence and strong reasoning things might have gone wrong.

Surgeon Generals of the United States Army.

A series of very interesting and instructive papers in a historical point of view have been running in the "Journal of the Association of Military Surgeons of the United States"; from the pen of the editor of that Journal, Major James E. Pilcher, M. D.; of Carlisle, Pa. The author in his labor has, in securing the data for these very readable articles, spared no effort, since every article or biography has been well worked out and contains such matter which makes each narrative quite interesting and complete. From these articles I make extensive extracts.

The first article appeared in the November number of the Journal. The first appointment to the Continental Army as Director General and Chief Physician was that of Benjamin Church. Born, as the records show, at the now gay summer metropolis, Newport, Rhode Island, on August 24th, 1734, "He was a man of firm presence and attractive personality," possessing literary ability; he was also of pronounced public spirit, taking an active interest in the stormy events leading to the War of Independence, being one of the leaders of the "Boston Tea Party." On June 27th, 1775, Congress passed an act to organize a medical Department entitled, "A Hospital for An Army," and Dr. Church, who was a member of the committee appointed by the Provincial Congress, for the examination of candidates for Surgeons in the Army, was appointed Director General and Chief Physician. While Dr. Church was distinguished in professional skill and literary and political ability, "he was deficient in the peculiar executive qualifications essential in the organization and direction of an army staff department. His efforts or methods of organization of the staff was a complete failure and later he was arraigned before a Military Court for treason, and was dismissed from his position and confiend in jail at Norwich, Conn. This was vigorously observed and in some months, his health becoming impaired, he was released with the promise to leave the country; sailing in a merchant vessel for the West Indies. Neither he nor the vessel was heard of again.

The second appointment was John Morgan, M. D., F. R. S., born in Philadelphia, 1735, graduated in the literary course in the College of Philadelphia in 1857. He pursued the study of physics under John Redman, from 1760 to 1764, he devoted his time to the study of medicine under the Hunters in Edinburgh, taking the degree of M. D. in 1764. He put in a winter in Paris, returning to England, he was admitted to membership in the College of Physicians of Edinburgh, and was elected to the Royal Society. In 1775 he was elected by Congress director general and physician-in-chief of the American Hospital, and he at once reported to General Washington at Cambridge.

Dr. Morgan, upon his appointment, "at once introduced system into the organization of the medical department and into the hospital arrangements, instituted a new examination for medical officers, by which the inefficient were weeded out; transferred numerous surgeons and surgeons' mates to regimental duty; returned a great number of patients to thier regiments; reinforced the inadequate medical supplies by result ofappeals to the charitable, and by the institution of hygienic and sanitary measures materially redused the sick rate of the army."

Dr. Morgan, during his stay abroad, became impressed with the need of greater facilities for medical education at home. In consultation with Dr. Shippen, Jr., plans were formulated for an American Medical School, which soon materialized under his fostering care. The Medical School of the Philadelphia College was established, which later became the Medical Department of Pennsylvania.

Dr. Morgan, in his work of constructing the Medical Military Department, encountered jealousy in other officers, and not being propwas finally summarily dismissed. Declining to endure the stigma cast upon him, he prepared a vindication of his course, and presenting it before Congress, he was exonerated. The committee reported that "He did conduct himself ably and faithfully in the discharge of his office." He returned to his home and an active practice, dying in October, 1789, at the age of fifty-four.

Three months after Dr. Morgan's removal from the Medical Department of the Army, that department continued without a chief. During the interval Drs. William Shippen, Jr., and John Cochran prepared a scheme for re-organization of the Medical Department, based on the methods of the British service, which, bearing the approval of General Washington, was adopted by Congress with some modifications upon the 7th of April, 1777; and four days later Dr. Shippen was elected director.

William Shippen, Jr., was born in Philadelphia on the 21st of October, 1736. In 1757 he went abroad and pursued his studies in London, Edinburgh and Paris, receiving his degree at the Edinburgh University in 1761. While in Europe he was impressed with the need of systematic medical instruction in America, and upon his return established a course of anatomy, delivering lectures upon this subject. Upon the establishing of the College of Philadelphia, he was chosen the professor of anatomy and surgery.

From 1776 Dr. Shippen continued successfully the conduct as director general of the medical department until June, 1781, when he resigned, "taking up his professional work in Philadelphia." He died July 11, 1808, in Germantown, Pa.

Dr. John Cochran, who with Dr. Shippen devised the scheme of re-organization of the army, by the action of Congress, being next in rank, became director general. He was born September, 1730, in Chester county, Pa., of Scotch-Irish parentage. He had finished his

medical studies in 1755, when the French and Indian war broke out, and he entered the British service as surgeon's mate. He served under Dr. Shippen as surgeon general of the medical department. Mustered out of service in 1783, he removed to New York, where he resumed the general practice of medicine. He died on the 6th of April, 1807.

Thatcher, the historian, said: "He united a vigorous mind and correct judgment with information derived and improved from long experience and faithful habits of attention to duties of his profession. He possessed the pure and inflexible principles of patriotism and his integrity was unimpeachable."

On the re-organization of the medical department of the army, October 6th, 1780, Dr. James Craik, an intimate friend of General Washington, was appointed the senior of the four "chief hospital physicians and surgeons."

Dr. Craik had his first acquaintance with General Washington at Fort Necessity. Washington became lieutenant colonel at the death of Col. Fry, at Mills Creek, and the headquarters joined him at Fort Necessity. Here began that life-long intimacy between Washington and Craik which was of so much advantage to both. Dr. Craik shared with Washington many adventures; was with him on various voyages through the wild, undeveloped country, among the Indians in the Alleghenies.

He was mustered out of service at the end of the war in 1738. He returned to his home at Port Deposit, Md. Later, at the solicitation of Washington, he removed to Alexandria, Va., and was with Washington in his last illness. "He remained vigorous to the last, and passed away February 6th, 1814, at the age of fifty-four."

Dr. James Tilton become the seventh chief of the medical department. In 1780 his name was at the head of the list of hospital physicians and surgeons. 1812 he was aroused by the spirit of war. He wrote a treatise on medico-military affairs, which was published in 1813, and he was elected to the office of physician and surgeon general when that office was established by the army staff, organization act of March 13th, 1813. He died at Wilmington, Del., on the 14th of May, 1822.

In 1818 Congress re-organized the medical service, this time taking steps toward system and providing for a surgeon general, assistant surgeon generals, regimental surgeons and surgeons' mates and post surgeons. Here for the first time appears the office of surgeon general by the name which has clung to it to the present time.

Dr. Joseph Lovel, born in Boston, December 22nd, 1788, was the first encumbent of the office.

Dr. Lovel studied medicine under Dr. Ingalls, a well-known practitioner of Boston, and entered the military service as surgeon of the Ninth Infantry. He was recognized as exceptionally well equipped for duty. In August, 1814, he received the well-merited recognition and was selected for appointment to the grade of hospital surgeon, which he held until his appointment as surgeon general in 1818. Dr. Lovel was efficient in every way, and while zealous in every movement for the honor and reputation of the corps, he was also actively interested in everything which might add to the efficiency of the service at large. He vigorously fought the whiskey ration, and to this earnest opposition was due its final abolition.

His principal work, however, was as a medical officer, in which capacity he showed himself a skilled physician and a dextrous surgeon, a capable organizer and a judicious administrator, ever loyal to his corps and faithful to its office at its head.

At the death of his wife, between whom and himself there was a profound attachment, he was so prostrated and from this he never recovered. He died on October 17th, 1836.

Unnecessary Philanthropy.

Dear Sir: We have an application for a health, accident and life insurance policy from Mr. ————, on which it is stated that he had catarrh in his right hand eleven years ago, and last winter suffered with la grippe for two and a half weeks. He gives you as his attending physician in both cases. We would like to have your opinion as to this risk; also as to the character of the catarrh with which he suffered. In addition to the above information, we notice that he had a sister that died of consumption, while his mother died with pneumonia and his father with paralysis. As Mr. ——— is 42 years of age, and his family and personal physical histories are not of the best, we wish to satify ourselves before finally passing upon the application. We would appreciate very much your reply. Very respectfully,

————————————,
Manager of Agencies.

The above letter was recently received by the writer, and is a form of letter which no doubt has been quite often received by medical practitioners, and with no second thought of why, have answered fully, capably, and in the same generous tone which accompanies the wording of the request; with no thought as to whether they are doing justice to themselves, while they are thus conferring a great favor on the company or corporation asking the favor.

There is ample reason that the donor of such service should assure himself whether he is a blank in the transaction; whether he is bound by duty to render such service and convey such information that he is able to convey, free, to the association, company or corporation for the mere asking.

Can he secure some accident or sick benefit or life insurance policies to be issued to him simply for the asking? Can he secure any benefit whatsoever from such corporation with-

out first rendering service or commercial value that such benefits be conferred?

There is no class of laborers who devote as much time and effort, which is of a purely charitable and philanthropic nature, unless it is one who devotes his time solely to that eleemosynary cause, as the medical practitioners of the world. And that is all right in honest charity, but where the corporation or the company want such information or labor to use in a commercial way, or for commercial purpose, then it is entirely wrong for the medical man to give that which he has spent years of toil and time to attain.

Let every medical man stand firm and definite for his rights, and demand that if such organizations want information for their use in their commercial enterprise, that the lawful information, which it is in the power of the physician to give, can be obtained upon receipt or assurance of the just and honorable fee for such work or knowledge. Let the united profession insist that these irregularities be objected to and opposed by its members.

What will eventually be the result of such indiscriminate conveyance of labor and knowledge with such an indefinite or absence of considered value, both upon the profession and upon the estimation of those seeking such information from the profession? It will be lowering and retrograding to the profession in two directions: it will cause the members of the profession to become indefinite and neglectful of giving earnest and carefully worked out knowledge, causing the members to grow less efficient; it will lessen or lower the esteem on the part of the recipients by the very fact of the lowered value put upon his knowledge by the individual practitioner, and by the profession as a body.

The practitioners and the medical profession as a body cannot afford to let these wedgewise forces gain entrance upon the influence and power of the profession. These will be added to by other implements which will still further destroy the unity of purpose and power for good. Do not hesitate to turn it down in an emphatic manner. Do not excuse yourself that you may as well do this to keep the good will of the concern, or to accept this pitiful fee under the plea that if you do not some one else will. Your dignified refusal may brace some weaker brother in standing firm when he is approached by the same or some other wily schemer.

Arteriosclerosis of the Central Nervous System.

This subject and the condition related has received recently some consideration by pathologists and clinicians. After a careful estimation of the condition, there is strong reason for earnest and effective study of this matter, that we may realize or appreciate the physical effect produced by the condition of the arterial circulation under the degenerated condition of the lesions of the arterial system of either the brain or the spinal cord.

The attention to the existence or effect of arterial degeneration in the brain and spinal cord has only infrequently received any attention. Some slight consideration has been paid to the arterial degeneration of the brain, but practically no observance of special spinal cord lesions of this nature.

Starr* considers that insufficient attention has been paid to arterial sclerosis as an etiological factor in nervous diseases, and that "it is not so well known as it should be that many of the spinal cord diseases are of sclerotic origin."

Diller** has well discussed the condition and describes five cases coming under his care. He refers to a paper by Dr. William Hersh, in Journal of Nervous and Mental Diseases, February, 1903, as being the noteworthy paper recently published upon arteriosclerosis of the cord, and to Hersh he acknowledges aid which enabled him to arrive at a diagnosis in his cases. The cases which Diller considered were those of arteriosclerosis of the central nervous system, principally of the cord, which had not produced hemorrhage or thrombosis.

In considering these cases it is well to exclude syphilitic vascular disease, which Diller considers difficult to differentiate from arterio sclerosis.

"In these cases of spinal arteriosclerosis, it is the lower portion of the cord which is chiefly involved, and this again may probably be explained by reason of the more peripheral situation of the vessels in this region as compared with those of the upper region of the cord."

In the experience of those who have studied these cases, the symptoms were almost wholly motor in character; sensory symptoms seem to be absent.

Diller made his diagnosis in four of his cases upon the following facts: "A marked weakness and unsteadiness of the legs in all cases suggestive of the gait of the very old man; a senile appearance; the presence of sclerotic arteries; an uncertainty in gait which bore only a superficial resemblance to that of tabes; the absence of specific history; the absence of sensory symptoms (subjective or objective); the absence of involvement of the sphincters; the failure of the symptoms to conform with those of the well-known organic disease of the cord."

Diller quotes from Hersh: "Considering the anatomical basis of the disease, it is evident that a sharply defined clinical picture cannot be given. It goes without saying that any artery or group of arteries may become the principal seat of the lesion, and that according to the localization and intensity of the affliction, the symptoms will vary. Just as the clinical picture of spinal syphilis is characterized by the atypical complex of symptoms, so is arteriosclerosis of a great variety of clinical manifestations. In spite of this, however, there are certain clinical phenomena which will enable us to recognize this morbid condition of the spinal cord during life,

and to differentiate it from the disease of this organ.

Star recommends Thyroid extract in 1 since it "has a potent influence in reducing pulse tension, and it is of great benefit in any case of malnutrition due to high tension and arteriosclerosis.

Let this study be earnestly pursued in the lines worked out by Hersh, Starr and Diller, that this condition may be thoroughly understood and easily recognized by the general practitioner, as it is imperative that every physician should be well acquainted with the signs; as all are liable to need the knowledge at any time. At the same time the course or measures to prevent or stay the conditions in their pathological march should be perfected, that good may be done and those suffering may be relieved.

*M. Allen Starr, M. D., Medical Record, July 4, 1903.

**Theodore Diller, M. D., New York Medical Journal, May 7, 1904.

Book Notices.

Diseases of the Intestines and Peritoneum. By Dr. Hermann Nothnagel, of Vienna. The entire volume edited, with additions, by Humphrey D. Rolleston, M. D., F. R. C. P., Physician to St. George's Hospital, London, England. Octavo volume of 1032 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $5.00 net; Half Morocco, $6.00 net.

This new volume in Saunders' American edition of Nothnogel's Practice is the eighth to be issued, and appearing within two months after the publication of the volume on Tuberculosis, gives evidence that the publishers intend completing the series at an early date. This, one of the most valuable volumes in the series, is by the famous clinican, Dr. Hermann Nothnagel himself, and is as exhaustive as it is practical. The distinguished editor, Dr. Humphrey D. Rolleston, of London, England, has used his pen most profusely, almost every page giving generous evidence of his careful editing. The editorial additions include sections on Intestinal Sand, Sprue, Ulcerative Colitis, and Idiopathic Dilatation of the Colon. Appedicitis and Peritonitis have been given unusual space, treatment and diagnosis receiving exhaustive consideration. The section on Intussusception has been greatly enlarged by the invaluable additions of D'Arcy Power, of England, who has made this subject his own. There are 20 inserts of great merit.

Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet, of Berlin. Edited, with additions, by Walter B. James, M. D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Handsome octavo volume of 806 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $5.00 net; Half Morocco, $6.00 net.

This is the seventh volume to be issued in Saunders' American Edition of Nothnagel's Practice, and the remaining four volumes are in active preparation for early publication.

The American edition of Professor Cornet's exhaustive work appears at a time when the subject of tuberculosis has a peculiar claim upon the attention of mankind. Within a few years both professional and general public interest in the disease has taken enormous strides. In almost every civilized community societies for the prevention of tuberculosis are being organized, and these are composed not only of physicians but of laymen, while governments themselves are taking an active part in the movement. Under these circumstances, and at this time, the work is of interest to practitioners, for there is no other treatise which gives an equally clear and comprehensive view of this subject.

The article on Acute General Miliary Tuberculosis has been admirably written and gives a thoroughly clear understanding of this disease.

The importance of the Chemistry of the Tubercle Bacillus and its bearing upon immunity have warranted a thorough treatment of this subject.

The work is complete and logically arranged, and the editor has made additions where necessary to bring it down to date.

Musser's Medical Diagnosis. New (5th) edition. A Practical Treatise on Medical Diagnosis for Studentsand Practitioners, by John H. Musser, M. D., Professor of Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia and Presbyterian Hospitals; Consulting Physician to the Woman's Hospital of Philadelphia and to the West Philadelphia Hospital for Women, to the Rush Hospital for Consumptives and the Jewish Hospital of Philadelphia; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians; President of the American Medical Association, etc. New (5th) edition revised and enlarged. In one octave volume of 1213 pages, with 395 engravings and 63 colored plates. Cloth, $6.50; leather, $7.50; half morocco, $8.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

It has been well said of this book that "everything in diagnosis can be found in it," and from the frequency of its editions we might add that it is always up to date in a most vigorously advancing and practical department. With this volume alone the physician is well equipped in what must underlie successful therapeusis—namely, accurate diagnosis. In the case of a book recognized, as this is, as the standard authority, it is sufficient to mention some of the features of this new edition.

The arrangement has been emopletely

changed to correspond with the development of the most logical and natural method of approaching a diagnosis in actual practice. Moreover, the entire work has been rewritten to attain the utmost lucidity. Through condensation in the more theoretical passages space has been gained for explanation of practical points in fullest detail. This element and the natural growth of the whole subject, have required a total increase of one hundred pages.

The number of illustrations has been nearly doubled, and fourteen new colored plates have been added, making the total number of such plates no less than sixty-three. "Musser" is by far the most lavishly illustrated volume ever published on diagnosis, but this wealth has been wisely apportioned. The engravings and plates are all telling, and in connection with their accompanying text they focus a clear picture in the mind of the reader. It is a work that every practitioner will find of immense service, and those teachers who use it for their classes will find their own labors facilitated and the records of their students at examination reflecting credit on all concerned.

Obstetric and Gynecologic Nursing. By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College and in the Philadelphia Polyclinic. 12 mo. volume of 402 pages, fully illustrated. Second edition, thoroughly revised. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Polished Buckram, $1.75 net.

The usefulness of this book to the nursing profession is manifest by the fact that a second edition has been called for. It is necessary for an obstetric nurse to possess some knowledge of natural pregnancy and of its consequent diseases; and as gynecologic nursing is really a branch of surgical nursing, special training and instruction are required to meet the conditions arising. This book just fills the need, everything that the obstetric and gynecologic nurse should know being included. The second edition shows evidence of having been carefully revised throughout, and considerable new matter has been added. It would be well if every trained nurse possessed a copy of this book, for it certainly is of inestimable value.

Eppilepsy and its Treatment. By William P. Spartling, M. D., Superintendent of the Craig Colony for Epilepties at Sonyea, N. Y. Handsome octave volume of 522 pages, illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $ 4.00 net.

This work by Dr. Spartling is of unusual interest for many reasons: It is the first complete treatise on Epilepsy since the appearance of Echeverria's work published over 33 years ago, and represents the practical experience of Dr. Spratling as Superintendent of the Craig Colony for Epilepties at Sonyea, N. Y., during a period of ten years. The great progress made in the knowledge of Epilepsy and its Treatment during the past fifteen years certainly demanded an accurate and careful work which would include these latest advancements. Dr. Spratling has given us all that could be desired. Of particular interest are the chapters on the Psycologic and Medicolegal Aspects. An entire section is devoted to the all-important seizure type—Status Epilepticus; and Treatment, general, educational, medical, and surgical, is discussed with wisdom, thought, and conservatism. The subject is bountifully illuminated by the citation of illustrative cases; and, indeed, for the entire work we have nothing but praise. General practitioners, as well as those especially interested in Epilepsy, will find the book of great value.

The Mother's Manual—A month by month guide for young mothers—by Emelyn Lincoln Coolidge, M. D., visiting Physician of the Out-Patient Department of the Babies' Hospital, New York; Physician in charge of the Babies' Clinic of the Society of the Lying-In Hospital of the City of New York. Illustrated. A. S. Barnes & Company, New York. 1904.

Possibly no being in the world is ever so conscious of helpless inability to confront an alarming situation as is the young mother left alone with her first child. While the nurse remains in charge every thing goes along smoothly, but when she withdraws, the condition is beset with many difficulties. In her inexperience the young mother may make many serious mistakes. She never knows what to do and what not to do. The author of this book has presented in its pages, with singular clearness and brevity, the information which the young mother needs the most. It gives us pleasure to recommend the book.

Manual of Materia Medica and Pharmacy. By E. Stanton Muir, Ph. G., V. M. D., Instructor in Comparative Materia Medica and Pharmacy in University of Pennsylvania. Third Edition, Revised and Enlarged. Philadelphia: F. A. Davis Co., Publishers. 1904. Cloth. 8vo. Pp. 192. Price, $2.00 net.

This Manual is "specially designed for the use of practitioners, and medical, pharmaceutical, dental, and veterinary students." It is divided into three parts: Part I—a synopsis of medical botany. Part II—the essential pointsof value about drugs; while Part III is devoted to Pharmacy. The metric system is generally adopted. The drugs studied are arranged in alphabetical order. The book has numerous blank interleaves for notes, etc. While it is a good book for the class room, we are afraid taht it is not sufficiently full for the needs of the practical pharmacist of today, who has calls for a thousand and one things not referred to in this book. The book, however, seems to be thoroughly reliable in its facts—as far as they go.

The Practical Medicine Series of Year Books. —Issued monthly. Gustavus P. Head, M. D., general editor. Volume IV., Gynecology, edited by Emilius C. Dudley, A. M., M.D., Professor of Gynecology, Northwestern University Medical School, Chicago, and Wm. Healy, A.B., M.D. March, 1904. Chicago, The Year Book Publishers. $1 per volume, or $5.50 for the series of ten.

This excellent publication continues to maintain the standard that was set up in the beginning. Each volume is edited by competent specialists in the respective departments, the whole forming a collection of great practical value at a nominal cost

A Text Book of Physiology.—By Isaac Ott, A.M., M.D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia. With 137 illustrations. Royal octave, 563 pages. Bound in extra cloth. Price, $3.00 net. F. A. Davis Company, Philadelphia, Pa.

This work has been written for students by an experienced and successful teacher, and for the under-graduates it is ideal.

The text is concisely and clearly expressed, and its elementary character is maintained throughout, covering the chief facts of physiology in a manner to be understood.

The book can be safely commended to the student about to begin the study of medicine.

The publishers have done their work well. The illustrations are beautiful and the binding attractive.

International Clinics.—A Quarterly of Illustrated Clinical Lectures and Especially Prepared original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Gynecology, Orthopedics, Pathology. Dermatology, Opthalmology, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners. By Leading Members of the Profession in all parts of the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia. Volume I. Fourteenth Series, 1904. Pages 304. Illustrated. Cloth. Price $2.00. J. B. Lippincott Co., Philadelphia.

We consider a volume of International Clinics an elegant book for the price. The volume contains about three hundred pages of text, three full page colored plates, forty full page half-tone plates and a number of other illustrations. The plates alone are worth more than the price of the wark.

This volume can be considered the year-book number of the series as nearly half of it is devoted to a review of the progress of the profession during 1903. David L. Edsall, M. D., of Philadelphia, furnishes the review of General Medicine, giving abstracts, with comments, of the year's literature. Joseph C. Bloodgood, M. D., of Baltimore, contributes the review of Surgery. This section contains numerous fine illustrations. Dr. A. A. Stevens, of Philadelphia reviews the progress in Treatment, giving the latest in therapeutics.

We have space to refer to only a few of the excellent original contribution of the volume. Drs. F. Widal and A. Javal, of the Paris Hospitals write on "The Chlorid Reduction Treatment of Parenchymatous Nephritis." Dr. H. W. Cattell contributes an article on "The Practical Application of Cryoscopy to Medicine." An article worthy of special note is one by Carl Beck, of New York, on "Angioma and Its Treatment," with colored illustrations. A valuable article on "Intestinal Anastomosis," is furnished by Dr. J. G. Clark and J. W. Luther, of Philadelphia. A very practical article is "The Non-Operative Treatment of Inflammations of the Genital Tract," by Francos H. Davenport, M. D., of Boston. "Peripheral Neuritis," is an interesting and useful article by Dr. W. B. Pritchard, of New York. The only way to know of the many good things in this volume is to buy it and the reader will profit by it's many suggestions.

Abstracts of the Leading Articles of the Month.

The Etiology of Insanity.

Combes (Brooklyn Med. Jour.) believes in the theory that toxic influences play the most important part in the etiology of insanity. He says that in 80 per cent. of the cases autointoxication is responsible. In place of making heredity a cause he says that a person has inherited a susceptibility to certain poisons produced within the body which have the property of influencing the nerve cells deleteriously. Brain lesions are a result of the continued toxic influence which interferes with the nutrition of the cells. In support of this theory he quotes the various forms of mental disturbance produced by drugs, such as alcohol, cannabis indica, nux vomica, bromids, cocain, absinthe, belladonna, chloral, etc. This theory, he thinks, explains why insanity is more likely to occur at the critical periods of life, i. e., puberty, child birth, pregnancy, lactation, menopause, etc. The influence of syphilis in general paresis he believes to be toxic, and the action of alcohol in the production of insanity is assigned to a similar cause.

Obliteration of the Superior Vena Cava.

W. Osler (Bull. Johns Hopkins Hospital) reports one case who he observed for three years, and he made a diagnosis of fibroid obliteration by exclusion, and a second in which the obliteration was due to compression in Hodgkin's disease. Of the 29 cases reported in the literature, thrombosis due to disease within the vein was found in 10. The others were due to lesions outside the vein—tuberculosis, mediastinitis, aneurism, syphilis, periaostitis, carcinoma and fibroma. The symptoms of the condition depend entirely upon the degree to which compensatory circulation has been established. Obliteration of any one of the three great veins of the body may ex-

ist for many years with even good health and a completely effected collateral circulation. The clinical summary of the first patient, a young negro, was as follows: Hard work, alcohol and exposure; dyspnea, swelling of the neck and face; gradual distension of the superficial thoracic and epigastric veins; improvement for a time; gradual increase in the size of the superficial veins; the finding of tubercle bacilli; finally, fever, delirium and unconsciousness. The autopsy showed a tuberculous caries of the spine, fibrous mediastinitis with obliteration of the superior vena cava and innominate veins, and a tuberculous meningitis. In the second case there was present a Hodgkin's disease, with compression of the superior vena cava and the formation of an extensive collateral circulation. The disease ran an unusually chronic course and was also marked by the extreme distension of the superficial veins of the thorax and abdomen. There were occasional periods of improvement from the administration of Fowler's solution. At autopsy it was found that the superior cava was completely obliterated by the enlarged mediastinal glands.

The Etiology of Serofibrinous Pleurisy With Reference to Cytological Diagnosis.

Bunting (Johns Hopkins Hospital Bulletin) says that the etiology of so-called "idiopathie" pleurisies with effusion in apparently healthy individuals has been a vexed question for over half a century, and directly opposite views have been held. Some maintain that all such are really tubercular in origin; others, that in a large proportion of cases the origin is not tubercular. The opportunity of directly determining the condition of the pleura in the acute stage of an uncomplicated pleurisy at post-mortem examinations is rarely obtained, and reports of such cases are rare. However, Kelsch and Vaillard have recorded a series of 16 fatal cases of acute pleurisy, in which tubercles were found on the pleura in all 16 cases. Failing, however, in the matter of large statistics on the direct post-mortem determination of the cause of the disease, there are open two avenues of investigation; the rather direct method of the examination of the exudate, and the indirect method of following the subsequent history of the patient. Along the latter there are several carefully compiled sets of statistics, which show in general that pleurisy patients are very apt in a short time from the onset of their disease to show signs of tuberculosis in other organs. The aspirated exudate in pleurisies has been repeatedly studied bacteriologically by cover-slip, culture, animal inoculation, and serum reaction, and quite recently cytological examination has come into prominence. The latter method was introduced by the work of Widal and Ravaut, published in 1900, and of Wolff, published in 1901. Widal and Ravaut studied 56 cases of idiopathic pleurisy with effusion, the effusion in all being taken as late as the ninth day from the onset of the disease or later. In these cases they find agreement in the fact that the white cells of the sediment are almost exclusively small mononuclear cells. In addition are found many red-blood corpuscles, a few large mononuclear cells, a few large endothelial cells (apparently derived from the pleura) and only rarely a polymorphonuclear cell, except in two cases aspirated on the ninth day, in one of which there was one polymorphonuclear cell to nine small mononuclears. They consider it also of importance that the endothelial cells are few in number and always isolated. Wolff's results agree in the main with those of Widal and Ravaut, but he finds that very early in the disease the exudate in tuberculous cases is almost exculsively polymorphonuclear, and concludes that at first it is entirely so. The small mononuclear, however, soon becomes evident and at the third day may make up one-third of the cellular exudate, gradually increasing in proportion from then on until eventually the whole exudate may be made up of mononuclears. The writer says that an exudate of one-half or more of small mononuclear cells speaks for the tuberculous nature of the process. The author has studied a series of cases of pleural effusions, and his results agree in general with those of the workers already referred to. The author states that there is a very definite formula to the cellular exudates, and that the time at which the exudate is taken is a marked factor in determining the particular proportion of cells present. In his earlier cases at about the end of the first week, the polymorphonuclear form from 15 to 12 per cent. of the exudate, the other cells being almost entirely small mononuclear, with a few cells indistinguishable from the large mononuclears of the circulation. During the second week there is a fall in the number of the polymorphonuclears, the limits being from 5 to 3 per cent. After this time it is often impossible to find a single polymorphonuclear, the exudate being almost entirely mononuclear. There are always a large number of red-blood corpuscles, and a few scattered and isolated epithelial cells. He does not pretend to show that all idiopathic pleurisies are tuberculous, but his study has shown that these effusions have an exudate remarkably uniform in cellular content and general characters, which may be assumed to indicate a uniformity in the nature and etiology of the process. This uniform cellular formula, the work of others seems to indicate, is the formula of tuberculous pleurisy.

A Case of Widespread Interstitial Myositis in a Child.

W. F. Litchfield reports this case in the Australasian Medical Gazette:

The patient was a female child, age 4 years and 5 months. She was complaining of stiffness of the joints. The trouble started 18 months ago in the ankles, stiffness of the knees, wrists and elbows, followed in uncertain order. There was never much pain, but the complaint has become steadily worse. There were no previous illnesses. The father and mother are alive and well, the first child

is alive and healthy, the second child is alive and healthy, the second child is the patient, baby, age four months, has snuffles well marked.

At first sight the disease looks like chronic osteo-arthritis. The fingers are bent on the palm. The hand is flexed on the forearm, there is flexion and limitation of movement at the elbow, knee and ankle, while all the joints stand out prominently. On looking closely, however, no definite enlargement of the joints can be made out, but there is a distinct and peculiar hardness of the muscles, and a corresponding tautness of the tendons in all four limbs. A film of the child's blood showed a great percentage increase in the eosinophile leucocytes. This eosinophilia, together with the hard condition of the mucles, suggested the possibility of trichinosis. To determine this point, Dr. Clubbe excised a small piece of muscle from the lower end of the left gastrocnemius. No trichinae were seen. Subsequently, however, the microscope revealed a distinct interstitial myositis. This was most marked near the muscle sheath, and consisted of abundant round celled infiltration, with thinning and loss of structure of the muscle fibres, and new fibrous tissue formation. These facts make it appear that there is a widespread interstitial myositis present in the case. The muscles showing abnormal tenseness are the small muscles of the hand and feet, and all the muscles of the forearm, arm, leg and thigh. The muscles of the neck, back and abdomen are apparently free. Another feature in the case is the tenseness of the skin and subcutaneous tissue in the arms and legs, it being impossible to pinch the skin up or roll it over the muscles.

I gather from Hyde and Montgomery's book on "Syphilis" and Quain's "Dictionary of Medicine" that a diffuse myositis, in some cases leading to contracture, may occur in syphilis. The family history suggests that disease as the causal in this case. During the last two weeks the child has been taking 2½ grains of potassium iod. three times a day, and already there seems to be some improvement in her condition. The muscles are less firm, and the movements are freer.

New Method of Kidney Suture.

Goelet (Annals of Surgery) describes his method of suturing the prolapsed kidney as used in 171 consecutive nephropexies without death and without failure to secure fixation. It is as follows:

Vertical incision through skin, beginning at last rib and extending downward along the outer border of the erector spinae for a distance of three and one-half inches. The latissimus dorsi is divided in the direction of its fibres, while the quadratus lumborum is retracted toward the spine and the deep fascia split downward, using care to avoid the iliohypogastric.

The fatty capsule is opened high up to prevent puncture of the peritoneum or intestine, and it is then carefully detached from the kidney around both poles and on each side back to the hilum. The fibrous capsule is not split or sacrificed.

Silkworm sutures, two in number, are used and are inserted beneath the fibrous capsule only, first obliquely downward, then transversely, and finally obliquely, froming a triangle with its apex toward the lower pole. The second suture is inserted in a similar manner just above the first.

Before replacing the kidney the fatty capsule is cut away, except that at the lower pole, which is left as a cushion for the kidney to rest upon.

The sutures are carried out through the skin above the incision and tied over a small pad of gauze to prevent their cutting the skin and thus allow the kidney to fall away from its bed.

A gauze drain is inserted under the kidney to prevent reatachment of the colon and is allowed to remain forty-eight hours.

The wound is closed by a running cat-gut suture for the muscles and a subcuticular suture for the skin.

When renewing dressings turn patient on affected side, except in the double operation, when the heaviest kidney is given preference.

Eye Defects Which May Cause Mental Dullness.

C. S. Bull, in Pediatrics, states that hypermetropia gives rise to ocular pain, headache, and a sense of fatigue in the brain—symptoms incident to weakness of the power of convergence. In many cases the correction of the refractive error will give very good results. It is absolutely useless to attempt to do this without a mydriatic. Astigmatism is productive of indistinct vision for both distant and near objects, and may be an etiological factor in the production of various neuroses, and even of epileptiform attacks in susceptible individuals. Gould, of Philadelphia, has recently cited some very remarkable cases in which the correction of even a very small degree of hypermetropia or h. astigmatism resulted in a complete cessation of epileptiform seizures. The patients were all adults, and had been considered epileptic for many years.

Myopia is very responsible for a child's supposed mental dullness. The constant though ineffectual efforts to see as his playmates do, causes an apparent backwardness in the child's intellectual development. He frequently shuns his companions, preferring to be by himself.

Correction of his myopic error allows him to see the world as his playmates do, and the mental dullness vanishes. Myopia, however, is a disease, and does not simply require concave glasses to complete the treatment. The general health should be carefully watched. The size of the school desk, and the direction from which the light falls on the student's book, are important elements to be considered. Moreover, it has been found that the more educated a country becomes, the more myopic its people are.

Pyosalpinx.

Coffy, in the Annals of Surgery, describes the surgery for pyosalpinx as follows: "After the abdominal incision has been made, first see if it is possible to push the intestines upward toward the diaphragm, and hold them by packing in gauze sponges; second, seek the fundus of the uterus. Having made way to the uterus, gradually insinuate the finger along the posterior surface until the cul-de-sac has been reached. Carry a gauze sponge down between the fingers and the uterus. From this point of cleavage separate adhesions from the center as much as possible, gradually filling with the gauze sponges the space made. As fast as possible separate adhesions of the intestines and push them back toward the diaphragm until they are well out of the way and a thick wall of gauze sponges separates the field of operation from the general abdominal cavity. Now gradually separate adhesions of the intestines and push them back toward the diaphragm until they are well out of the way and a thick wall of gauze sponges separates the field of operation from the general abdominal cavity. Now gradually separate the adhesions, holding down the tubes, and lift the uterus as high as possible with vulsellum forceps.

The first step in the actual operation is to exsect the tube by a V-shaped incision in the cornu of the uterus. . . . Follow this up with a continuous catgut until the V-shaped incision has been almost closed. Put down this needle and thread; lift the tube as high as possible; ligate the web or ligament of the tube in three or four different sections with catgut as close as is consistent. A certain amount of comparatively healthy and active ovarian tissue may be found at the base of almost every ovary, no matter how cystic. Remove all the cystic portion, making, if possible, a V-shaped incision, which is to be closed with a very fine catgut. . . . Now take up the needle and continuous catgut suture which has been used to close the V-shaped uterine incision, pass the needle through the peritoneum just external to the line of stumps, then the side of the uterus, then through the peritoneum, back to the side of the uterus, and so until the peritoneum forming the web or ligament of the tube has been brought in contact with the side and back of the uterus. After this has been done it is found that the raw stumps are hidden and in contact with the back and side of the uterus. The ovary is suspended by its normal ligament under a roof made of the peritoneum of the broad ligament, and is thus protected from contact with the intestines above. The other tube and ovary are treated likewise. Owing to the fact that very many of these cases tend to retroversion of the uterus, I have supplemented this part of the operation by what I have called, for want of a better name, 'posterior advancement of the round ligament,' which is done by seizing the round ligament an inch or an inch and a half from its uterine attachment and bringing a knuckle backward to be stitched to the posterior and lateral surfaces of the uterus and broad ligament by a line of catgut sutures. This holds the uterus in its normal position. In the great majority of cases every raw surface may be covered up by this method. If there should be infection of the ovary or in the stump following the operation, there is but one place for an accumulation to take place, namely: in the cul-de-sac, where it will do the least possible damage and be most easily reached."

Drainage is unnecessary except in acute cases, the pus being generally sterile. When required, drainage through the cul-de-sac should be resorted to, using the compound drain of rubber tube and gauze. The advantages of the author's method are as follows:

1. Small mortality. 2. The covering of every raw surface with peritoneum as far as possible, and directed so that drainage will be into the cul-de-sac. 3. Future complications are almost altogether prevented by exsecting the tube from the cornu by a V-shaped incision, suturing the incision with catgut, and bringing the peritoneum of the broad ligament and the stumps in contact with the uterine body. This turns the ovary and raw surfaces into the cul-de-sac, sheltered by overlying peritoneum, and all broken areas are brought into the cul-de-sac within easy reach in case of infection of either the uterus or remaining ovarian tissues. 4. Owing to the tendency of the uterus to be drawn backward by adhesions, the posterior advancement of the round and broad ligament serves a valuable purpose. 5. No vessel is tied which under ordinary circumstances could cause fatal haemorrhage, even though all ligatures slip. 6. All the normal womanly functions except childbearing can be kept up in almost every case.

Diabetes Mellitus, Reactions of the Blood in Experimental.

Dr. Street, in the Journal of Medical Research, reaches the following conclusions:

1. The subcutaneous injection of an alcoholic solution of phloridzin, which causes a transitory glycosuria, is shown by a slight, though readily demonstrable, increase in the serum of the rabbit of the haemolytic complement for bovine erythrocytes; this increase is to be explained as occurring coincidently with the inflammatory reaction of the organism to the injection. 2. No effect of injections of phloridzin on the amboceptor for bovine erythrocytes can be demonstrated. 3. The intraperitoneal injection of adrenalin chloride is followed by no marked effect on the blood-reactions; the injection may, however, cause an inflammatory reaction, and so cause an increase of complementary activity. 4. The complete removal of the pancreas from dogs, which causes a true diabetes mellitus of severe type, is followed by a marked decrease of the haemolytic activity of the diabetic dogs' serum for both rabbits' and guinea pigs' erythrocytes. 5. The diabetes caused by the complete extirpation of the pancreas is further characterized by what is to be in-

terpreted as a complete loss of the normal bactericidal property of the serum of the dog. 6. This decrease of the haemolytic activity of the diabetic serum for erythrocytes is due to loss of haemolytic complements. 7. The complete removal of the pancreas is as necessary to this loss of complement as it is to the production of a diabetes. 8. The complete removal of the pancreas has not deprived the organism of its power to react to the inflammatory process by an increase of the complementary substances. 9. No disturbance of the normal relation of the receptors of the erythrocytes to specific haemolytic amboceptors can be dmonstrated in the course of a true experimental diabetes. 10. The loss of the complementary substances in diabetes mellitus points conclusively to the fact that no relation exists between the leucocytes type and the production of the complements. 11. A decrease in the amount of glucose excreted by the diabetic organism cannot be shown to occur in the course of a secondary infection, at least during the earlier stages of the diabetes.

Human Infection With the Screw-Fly.

Chas. B. Gant (Texas Med. Jour.) mentions several cases of human infection with this parasite which so commonly attacks domestic animals in the southwest. The author has seen three cases in two years, and in one, that of an aged man, life was barely saved after extensive destruction of the soft palate and nasal septum. More than on hundred worms were removed. Two of his patients were attacked in the nasal and post-nasal cavities, and one in the middle ear. The latter location, especially when it is the seat of a suppurative otitis, furnishes a favorable place for the fly to deposit its larvae, which can be seen by the naked eye, as white, elongated specks in active motion. One such case came under his observation. The patient was a boy, aged fourteen, who had suffered for some years from suppuration of the left ear. His father explained that for two days the boy had complained of headache, dizziness and tinnitus, and that the discharge was offensive, bloody and more watery than usual. After syringing out the ear, examination with the head mirror by reflected light, showed one of the worms in motion, engaged in the opening of a perforated drumhead. This was removed with forceps and by means of the Politzer bag another was forced into the opening by the current of air and removed. Three in all were thus removed, the ear again syringed out with warm borie solution, treatment for the suppurative otitis inaugurated, and the trouble soon disappeared. It can be readily believed that such a case neglected might have ultimately been fatal. These cases may mislead the physician, since they may be deposited during sleep in a suppurating ear. Only discomfort is felt at this time, but sufficient to attract the patient's attention, as the parasites, now of such size as to be just plainly visible to the unaided eye, work their way upward. Their maximum growth is probably attained in from six to ten days, but long before this time the symptoms have become markedly pronounced. Bloody serum is constantly discharged, and the odor of peutrefaction is present. In advanced cases of nasal infection edema of portions of the face is seen, especially of the lower eye-lid and malar region, by reason of the extension of the inflammation up, or the actual presence of a worm in the nasal duct. In such cases systemic symptoms are not lacking, as might be expected from the absorption of saprophytic products. Inspection, when the sites of infection can be seen, generally reveals a grayish exudate which covers the worms and prevents their active motions from being visible. They are arranged vertically, firmly attached by mandibles or suckers, and their tenacity of hold is surprising. The remedy is chloroform, applied pure or in spray, only as small a quantity as possible being used. This loosens the worms and often kills them.

An Epidemic of Favus.

Sheldon G. Evans (Jour. Ass. Military Surgeons) describes several cases of this disease. The origin of the cases was traced to a German apprentice boy who was evidently suffering from the disease when sent to the ship. From him it was spread to the others by the utensils of the barbers aboard and through the custom of changing watch caps. The diagnosis of the disease is easy: The mass of yellow scales, the cup shaped depressions and the falling hair are characteristics. He suggests the following treatment:

The hair of every patient was cropped short and kept so during the entire course of the treatment. A solution of mercuric chlorid in alcohol 1 to 500 was prepared, and two stiff brushes provided. The heads of all the patients were thoroughly scrubbed with the solution every other day for a week or ten days, within which period all the scales were removed, leaving only a yellowish stain on the scalp. Then a solution of the same strength, in water and glycerin, was prepared and the patient's head bathed therewith, twice a week. Under this treatment, all the cases rapidly improved, and a complete cure was effected in a very short time, and none developed a second attack. If the scalp is much inflamed or tumefied a mild sulphur, mercurial or zinc oxid ointment will quickly relieve it.

The Tonsils and Disease.

W. S. Anderson (Detroit Med. Jour.) states that in chronically enlarged tonsils we have a number of affections traceable to them. The crypts of the tonsils afford an excellent lodging place for particles of food, which, together with the secretions into the crypts, supply the proper medium in which innumerable pathogenic organisms thrive. The decomposing material gives a foul odor to the breath, interferes with normal digestion and may cause gastric disturbance. Absorption of sep-

tie material from these crypts causes infection of the lymphatic glands of the neck, with enlargement and possibly suppuration. When enlargement of the glands of the neck exist one should seek for the point of infection. This may be found to be due to disease of the ear, nose, naso-pharynx, tonsil, teeth or larynx. The most frequent cause is disease of the tonsils. The tonsils may not be very much diseased and yet, if examind carefully with a bent probe, diseased crypts will often be found, forming blind pouches, through which infection may take place.

Miscellaneous.

Meeting of the Board of Medical Examiners

The 42nd annual meeting of the Board of Medical Examiners of the State of North Carolina was held in Raleigh May 18th to 24th. There were 97 applicants for license, 75 passed, 3 withdrew and 19 were rejected. The highest average was made by Dr. Marshall C. Guthrie of Raleigh, 94 1-7. Dr. Hugh E. Bowman of Davidson, being second with a grade of 92¼, and Dr. Wm. A. Bradsher of Roxboro, third, with an average of 92 2 7.

Six of the applicants made an average above 90, the three named above and Dr. Calvin S. Hicks of Durham, 91 1·7; Dr. Arthur E. Billings of Charlotte, 90 6-7; Dr. May S. Miles of Greensboro, 91½.

License was granted to the following:

John H. Martin, Poindexter.
Wm. T. Moore, Vultare.
Richard N. Littlejohn, Jr., Charlotte.
Albert D. Edwards, N. Wilkesboro.
Rich'd B. C. Lamb, Elizabeth City.
Everett A. Lockett, Winston-Salem.
Jno. Lawrence Nicholson, Washington.
John Wm. McGehee, Madison.
Julian G. Busby, Salisbury.
Calvin S. Hicks, Durham.
Nathaniel A. Orr, Charlotte.
Arthur W. Green, Powellsville.
John L. Myers, Wilkesboro.
Thos. H. Wright, Charlotte.
Wm. P. Simpson, Wilson.
Wade H. Anderson, Wilson.
Caroline J. Young High, Southern Pines.
Wm. N. Dalton, Danbury.
Wm. M. Strong, Charlotte.
Arthur E. Billings, Charlotte.
Leighton W. Hovis, Charlotte.
Thos. F. Reynolds, Leicester.
John B. Gibbs, Burnsville.
Robert H Bradford, Charlotte.
Henry C. Salmons, Buck Shoals.
H. A. Garner, Asheville.
Euel H. Lyon, Stem.
Alvon A Nichols, Painter.
Joseph B. Riddle, Bridgewater.
Chas. E. McLean, Gastonia.
Wm. I. Taylor, Harrell's Store.
John O. Plummer, (colored) Warrenton.
Ernest D. Hoffler, (colored) Greenville.
Joseph B. Philips, Jr., Spring Hope.
James I. Bradshaw, Relief.
Arthur P. Willis, Cana.
Geo. M. Chapman, Logan's Store.
Rob't M. Andrews, Cliffdale.
Dugald C. McIntyre, Lumberton.
Rich'd E. Windley, Lake Landing.
Walter H. Everhart, Newton.
Wm. W. Craven, McKeesport, Pa.
Jasper L. Beam, Crouse.
James F. Laton, Albemarle.
Campbell A. Baird, Bethel Hill.
Celus G. Ferebee, Shiloh.
Eulalie M. Abbott, High Point.
James T. Justice, Jacksonville.
Joe T. Davis, Gumberry.
James J. Stewart, Newton.
Wm. Franklin Smith, Salisbury.
Hugh E. Bowman, Davidson.
Hugh R. Thompson, Reidsville.
Frank L. Sharpe, Statesville.
Marshall C. Guthrie, Raleigh.
Wm. A. Bradsher, Roxboro.
John H. Stanley. Raleigh.
A. McNiel Blair, Southern Pines.
J. Robert Lowry, County Line.
Jesse E. Ward, Wilson.
Doctrine H. Reed, Washington, D. C.
Bedford E. Love, Leasburg.
Chas. C. Orr, Charlotte.
Sanders P. J. Lee, Dunn.
John H. Bourneman, Wilmington.
John R. Williams, Asheville.
May S. Miles, Greensboro.
Benj. G. Allen, Henderson.
Thom. J. Holt, Smithfield,
Wm. H. Coffman, Asheville.
Paul V. Anderson, Wilson.
Chas A. Woodard, Wilson.
Rob't J. Orr, Brevard.
Sheridan C. Highway, Murphy.
Otho C. Wright, Jarratts, Va.

Dr. Chas. O'H. Laughinghouse of Greenville, was elected President of the Board for the next two years and the Secretary was continued.

A unanimous vote of thanks and appreciation was given to the retiring President, Dr. H. M. Fletcher, for his faithful and efficient service. The question of reciprocity was discussed and it was decided to be unwise and impractical in the present condition of our practice laws. The Board adjourned to meet in Greensboro on the Wednesday before the meeting of the State Medical Society in 1905.

Sanmetto in Genito-Urinary Diseases.

I have prescribed Sanmetto with much satisfaction in diseases of the genito-urinary organs—with marked effect in prostatic

troubles of old men, and in different kinds of urethral inflammation, even in gonorrhea. It is certainly an excellent vitalizing tonic to the reproductive system. I am using original packages, except very rarely in smaller quantity, and then I am absolutely sure that no substitution is practiced, as I see to it with my own eyes, if necessary, that the genuine article is gotten by my patients. The subject of substitution, so largely practiced, is one of pre-eminent importance, and needs to be watched by all physicians, with both eyes.

Russell, Tex. Joseph W. Robb, M.D.

It has been shown that guinea pigs, and other animals inoculated with the poison of tetanus, survive when treated at once with Antitetanic Serum. In France, Nocard observed 375 animals of various kinds, all of which had been wounded, accidentally or surgically, and subjected to tetanic infection. These animals were given Antitetanic Serum at once, before the disease had time to develop. As a result, not a single case of tetanus occurred among them. On the other hand, he noted 55 traumatized animals that had been exposed to tetanic infection, every one of which developed the disease.

In the August, 1899, number of Medicine, Prof. Geo. F. Butler, M. D., says: "Dr. Joseph Hughes, one of the most eminent and conservative veterinary surgeons in Chicago, has used a serum as a prophylactic in over 500 cases following wounds, both surgical and accidental." Not a single case of tetanus has developed, though Dr. Hughes has used the serum where by former experience he was justified in expecting the disease to manifest itself.

From this and similar reports it has been proposed to immediately inject antitetanic serum in every case of traumatism of a suspicious character, hoping in this manner to prevent the subsequent development of tetanus. The serum is harmless to man and may be given hypodermically as the other serums. Nocard recommends that a first injection of ten cubic centimeters should be made as soon as possible after traumatism. A second injection should follow in from 12 to 15 days.

It has been suggested to inject prophylactically all new-born infants in certain sections of Europe in which trismus neonatorum prevails.

In the Therapeutic Gazette for February 15, the editor directs attention to the fact that "although tetanus is, comparatively speaking, a rare disease, it is sufficiently frequent and fatal to make an antitetanic serum a much sought for remedy." He also pointed out the fact that the failure of antitetanic serum depended "not upon the fact that it was possessed of no virtue, but rather because it was used too late to combat the disease." The same writer expresses the view that, "one fact stands out above all others, and that is, that thoroughly good results cannot be expected from antitetanic serum unless it be given in the very earliest stages of the infection." So true is this that experienced observers have insisted that its best results can be obtained only when it is administered immediately after exposure to infection, without waiting until the micro-organisms have had a chance to develop in the body and produce early symptoms of poisoning.

The editor of the New York Medical Journal, in the issue of March 26, 1904, remarks that "the present drift of opinion seems to be the effect that tetanus antitoxin while probably of considerable prophylactic efficacy is of little use as a curative agent."

At a meeting of the Paris Society of Surgery, according to the same editorial, M. Labbe expressed the view, that since the injection of antitetanic serum has been employed as a routine prophylactic measure, the disappearance of tetanus after surgical operations in horses was a prime fact in support of its preventive efficiency.

Furthermore, recent experience in the immediate topical employment of antitoxin in cases of toy-pistol injuries appears to support our trust in its prophylactic value.

Bazy (Bulletins et Memoires de la Société de Chirurgie de Paris, 1896, N. S., XXII, 186, 191) had four cases of tetanus develop in his wards. From that period he applied preventive treatment to all cases of wounds admitted to his service. He made 21 preventive inoculations of 10 cubic centimeters each. None of these patients developed tetanus, although he says their wounds belonged to that category which includes most cases of the disease.

Dr. Joseph McFarland, in the Journal of the American Medical Association for July 4, 1903, reports the results of a series of observations upon 800 horses which illustrate the value of antitetanic serum as a prophylactic agent. During the period of four years there had been a death-rate of 10 per cent. from tetanus, in spite of all precautions. A systematic immunization with antitetanic serum was then begun. Injections of 10 to 25 Cc. of serum were given every three months. As a result the death rate from tetanus rapidly decreased, and in the second year had been reduced to less than 1%. The author believes that the practical conclusion to be drawn from these observations may be applied to the human subject. He thinks that antitetanic serum

should be given as a prophylactic measure in all cases of suspicious wounds that are likely to be followed by tetanus.

Experiments made on guinea-pigs by the author demonstrated that the dried serum fully protects inoculated animals.

At the 29th annual meeting of the Mississippi Valley Medical Association, held at Memphis, Tenn., October 7, 8 and 9. 1903, Dr. S. C. Stanton, of Chicago, contributed a valuable statistical paper on "The Prophylaxis of Tetanus" (The Medical News, October 31, 1903, page 860). Among the various prophylactic measures recommended by the author were the open treatment of all wounds, however insignificant in which from the nature or surroundings there was any risk of tetanus: the immediate use of antitetanic serum in all cases of Fourth of July wounds, wounds received in barn yards, gardens, or other places where the tetanus bacillus was likely to be present, or tetanus infection to occur.

Treatment of Urethritis and Cystitis.

Stephen L. Reid (Medical Examiner and Practitioner, November, 1903), says the aim in these cases is to render the urine bland and unirritating; succeeding in this we next seek to apply the medicament directly to the affected part. The first is accomplished in a measure by placing the patient on a light digestible diet, no spirits or condiments and large quantities of soft water. The second is harder. In applying remedies to the affected part we risk setting up further irritation by the mode of application or the strength of the remedy; administering drugs by the mouth we risk the chemical changes all drugs or food taken into the stomach undergo and although an analysis of the urine may show a portion of the drug recovered unchanged, can we be certain of its therapeutic action, and may not its passage through the system, failing to change its form, have rendered it inert? In the treatment of these cases he has used different methods always including irrigation. Two years ago his attention was directed to cystogen, and since the first trial he has continued using it. In a report of nine cases treated with cystogen he used no irrigation. It is claimed for cystogen that pus formation is prevented, deposits of urates dissolved as well as phosphates and oxalates; it stops ammoniacal fermentation and inhibits the growth of bacteria. The author also found cystogen very effective in gonorrhœa. Case one was a gonorrhœa of ten years' standing and still uncured when seen. The urine contained pus, gonococci and blood. Sounds were discontinued for a time, the patient placed on proper diet and cystogen administered, five grains four times daily. In ten days the morbid products in the urine had disappeared and treatment of a stricture two inches from the meatus was commenced. Case two, patient complained of a dull aching pain about neck of the bladder and inability to completely empty the bladder. The urine contained pus, bacteria and blood corpuscles; urine fetid and ammoniacal odor. Put on cystogen, five grains four times daily. In a week the prominent symptoms had almost subsided, the urine lost its offensive odor and the bacteria disappeared. Treatment continued with ultimate recovery. Case three was one of nephritis and the usual treatment was supplemented by the addition of cystogen, five grains four times a day. The pus soon disappeared and the albumen diminished in quantity. Cases four and five were similar in character, both being women and presenting symptoms of violent pains in the loins, fainting, nausea and vomiting, rapid pulse, great thirst; passed urine frequently. Morphia was administered until the acute symptoms subsided and then cystogen was given four times daily. In nineteen days the first case had passed a teaspoonful of gritty sand and on the twenty-third day a much worn stone the size of a cherry pit. In the other case during a period of fifty-three days the patient passed nineteen concretions ranging in size from a pinhead to a buckshot and a quantity of gritty sand. Cystogen was the only preparation used except morphia and saline cathartics. In the other cases reported by this author the results were equally good.

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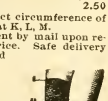

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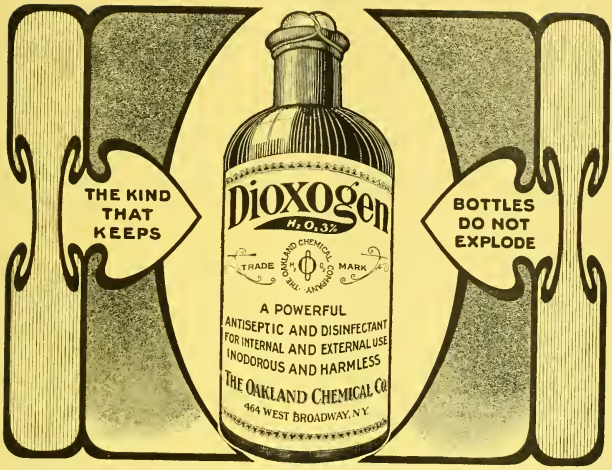

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Is the Journal of the American Medical Association a Partisan Organ?

The letter published herewith was sent to the Journal of the A. M. A. for publication, and was returned, with the explanation that the editor did "not see fit to publish it" without alteration. He failed to inform me whether he took exception to the style or to the subject matter. I saved my ego center from shock by inferring that the subject matter was offensive. The distinguished editor of the Journal has adversely criticised my style on several occasions, and another blow would have given me literally a "finish." The criticisms of a master, though well meant, are often drastic medicine for budding aspirants for literary honors. Being curious to know how the rejected stuff would look in print, I have done the deed herewith in evidence. If it "takes," I am going to put a nice little hand press in my laboratory, where I can cultivate antitoxin for illiberalitis, for the innoculation of pachyderms, the macrocephalus communis, acephalus vulgaris and other zoologic and pathologic things, and be certain that it will be seen, if not read. There will be no board of censors.

If the American Medical Association desires the sympathy and co-operation of the medical profession at large, it must avoid partisanry and affronts to the medical rank and file. I submit that the comments of the editor of the Journal of the A. M. A. mentioned in my letter, were an insult, not only to the general practitioner, but also to a large number of eminent men, whose contributions and pictures have appeared from time to time in the Medical Brief. Among these are some of the most distinguished men in America—men with whom anyone should be proud to associate.

G. Frank Lydston.

"Good men in bad company—an explanation which explains."

Chicago, December 15, 1903.

To the Editor of the Journal of the A. M. A.:

Dear Sir: Under the above caption, in the Journal of December 12th, appears a letter from Dr. John A. Wyeth, repudiating the announcement of the Medical Brief that he had contributed an article to its columns on fracture of the radius. He explains that the article was one which he gave to a starving female stenographer, who said she could sell it for $20, and who agreed to submit it to the Medical Record or New York Medical Journal. Failing the acceptance of the article by one or the other of these publications, it was to be returned to Dr. Wyeth. Dr. Wyeth further stated that the same woman had imposed upon other members of the New York profession in like manner. You comment upon Dr. Wyeth's letter, as follows, viz.: "Does this explain why other reputable men appear as contributors to the above so-called medical journal, in some instances with photographs?"

Will you, oh saintly editor of the purest publication known to medical literature, permit me to say a few words in reply? And will you refrain from using the blue pencil, even at the risk of being considered pride-swollen by the foregoing adjectives?

In the first place, why should Dr. Wyeth feel called upon to apologize for or explain the publication of his article in the Medical Brief? There are but three motives which justify the publication of most medical articles, viz.: Self improvements, self-advertisement, and the education of the medical "rank and file." We will leave out of consideration the discoverer of a new idea that shall save humanity from suffering and death. He is such a rare bird that he scarcely counts in the present issue. Pray inform me, Mr. Editor, which of the desiderata mentioned are not conserved by the writing of articles for the Medical Brief? This journal is so largely patronized by the doctor of the cross roads and hamlet that it is one of the best advertising mediums in the world. Its proprietor has proven the demand for his wares by becoming rich beyond the dreams of avarice. "Chiefly through his interest in the semi-proprietary preparations advertised in its columns," you will doubtless reply, but why should not a doctor editor profit by medical preparations? This much is certain, viz.—if the profession did not consume such preparations the editor of the Brief would have failed in business. And now for the character of the preparations upon which the fortune of the Brief man was built. Listerine, I believe, was the corner stone. Who has not used it? Who has not carried grist to Dr. Lawrence's mill, simply because it is easier to read a label than to use our brains? Apropos, I was just reading some of the ads. in the Journal of the A. M. A. "The Vibrator" that "gets the nerve endings and allows the operator to control nutrition to any part of the body." "Vapo-Cresolene, the atmistopharmacon for Whooping Cough;" "Iatrol;" "Toplitf's suppositories for Hemorrhoids;" "Cactina Pellets," for the heart; "Seng," for the stomach; "Listerine"(!!!); "Lithiated Hydrangea (!!!); "Unguentine;" "Tyree's Antiseptic Powder;" "Kelene;" "Terraline;" "Plasmon;" "Antiphlogistine;" "Neo-ferrum;" "Stypticum," etc. Dr. "Ready-Made" seems to have a fair

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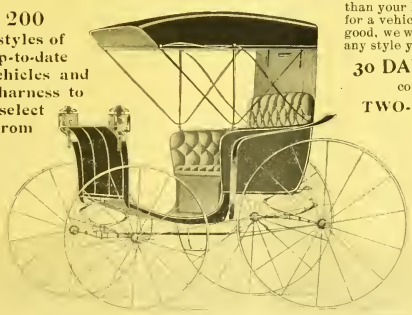

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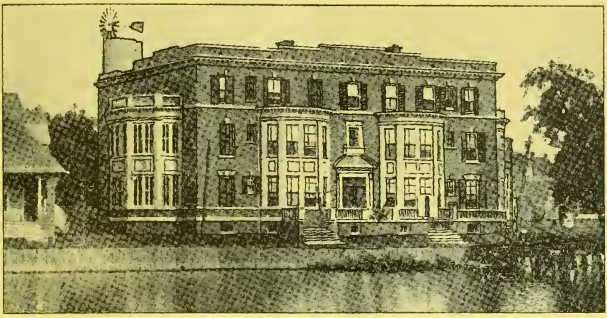
field to select from in our own Journal of the A. M. A. Let me see, I believe such things as "Midy Capsules" and "Scott's Emulsion" have appeared at various times in the Journal. Fig Syrup once adorned its pages. All of these are to be found in the newspapers. Fig Syrup is said to be anything but a preparation of figs.

One would think that local pride should have prevented my friend, Dr. Wyeth, from betraying the fraud perpetrated upon the New York profession. Can it be possible that New York doctors could be cajoled into the belief that either the New York Medical Journal or the Medical Record would pay a stenographer $20 for a short article by anybody? I infer that the poor woman made better terms with the Medical Brief. If so, all honor to the journal that is willing to pay well for the stuff which a pampered medical press is wont to devour without so much as saying, "I thank you."

If the New York profession is so "easy" as Dr. Wyeth claims it is, New York should be a paradise for the vendor of medical gold bricks.

Would it be immodest for me to take the expression, "other reputable men," in your letter, Mr. Editor, as having a personal application? I have myself published short articles in the Medical Brief. My photograph, also, appeared in its columns once on a time. What about it, Mr. Editor? I am just about to send another short article to the same publication. Furthermore, oh, shameless confession! I wrote and sent the articles myself. I have no stenographic "Eve," mendicant or otherwise, to lay the blame upon. I cannot even be in fashion. Likewise did I send the photograph myself. Would that I could explain, as do some of my brethren when their pictures appear in the publications of the Philistines, and say: "Somebody, at some time, stole my picture, which was published in some journal somewhere by somebody or other!" Alas! I have left my pictures around in all sorts of positions that should be tempting to the dishonest among literary folk, yet nobody has ever stolen one, and if they had, they would't have published it, I'm sure. How I sympathize with those of the brethren who are more successful in having things stolen. How fatal the gift of beauty!

I have serious doubts as to my friend, Dr. Wyeth—really feeling ashamed of his alleged connection with the Medical Brief. He is broad gauge, liberal and a most charming personality. I suspect, however, that he has yielded to the policy pressure of the multifarious medical snob. I do not see



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how he, a medical educator, could consistently administer a slap to the large number of subscribers to the Medical Brief. Surely he has never instructed his publishers not to sell his text-book to the "cross roads" doctor. Now, Mr. Editor, this is no defense of the Medical Brief and its ilk. The success of such journals proves the demand for them. When the profession is educated to a higher plane than that of the "what's good for measles" article, such journals will cease to exist—not before. I merely protest against "snobbishness," editorial or other, and against the demand for explanation of, or apology for, literary conduct which is a matter of personal privilege. Variations of taste or policy are by no means criminal or unprofessional.

G. FRANK LYDSTON.

Cactina in Functional Diseases of the Heart.

After referring to all recognized heart stimulants, Dr. Hatch concludes: The last in the list of cardiac stimulants, but by no means the least, is cactina. This drug is the proximate principle of the Cereus Grandiflora (night blooming cereus), and belongs to the natural order of the Cactaceae, a plant indiginous to tropical America. This active principle was most successfully isolated by a pharmaceutical chemist of St. Louis—Frederick W. Sultan—who obtained it from the flowers and stems of the Mexican variety, which yields a greater and more constant quantity than any other species. This drug is non-irritant and can be applied to the conjunctiva in a ten per cent. solution without producing any noticeable effect. Therapeutic doses cause a rise in the arterial pressure and increase the pulse rate, whereas toxic doses cause first, acceleration of the pulse and a rise in arterial pressure that is followed by a drop in the pressure and a diminution in the rate of the pulse. The pulsations become irregular and spasmodic and the heart is finally arrested in systole.

A fair conclusion is that the drug produces these effects chiefly by direct stimulation of the intra-cardiac ganglion.

From this we may summarize that the action of the cactina in therapeutic doses is to increase the musculo motor energy of the heart, elevate the arterial tension with a corresponding increase in the height and force of pulse wave, and to elevate the general nervous tone by stimulating the motor centres in the cord.

DIPHTHERIA

All safeguards possible should be used to further the successful treatment of diphtheria. Vaporized Cresolene has a powerfully germicidal and sedative influence on the diseased mucuous membrane, and has been shown by laboratory tests to be destructive to diphtheria bacilli.

It is no trouble to use, is prophylactic, does not conflict with any internal medicine, and adds to the probability of successful treatment.

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THE VAPO-CRESOLENE CO.

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Cactina is indicated then whenever we need a powerful cardiac tonic stimulant.

Its greatest value has been shown in functional disturbances of the heart, such a simple dilatation and cardio musculo-atony, in which there are no organic lesions.

It has a great advantage over digitalis in that it can be administered continuously without producing gastric irritation and without fear from cumulative action.

It is of use also in organic diseases of the heart, save in one instance, viz.: mitral stenosis, where digitalis is to be preferred because it prolongs the diastolic period, thus giving the ventrical time and power to empty itself.

The dose of cactina with which the best results have been obtained is 1-100 of a grain (in the form of Cactina Pillets), repeated at frequent intervals. The continued use reduces and regulates the pulse by giving strength and tone to the heart's action.

In several cases of functional disturbances of the heart, particularly tobacco heart, in which I have prescribed cactina, I have been able to reduce the pulse rate within a few hours, and by the withdrawal of the narcotic and continued use of the drug bring the patient to a normal condition

My experiance with cactina has been such that I put more faith in it for functional disturbances than any other remedy that I have tried.—[Extracts from an article in the Medical Examiner and Practitioner, by John L. Hatch, B. S., M. D., New York.

GLYCO-THYMOLINE
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CATARRHAL CONDITIONS:

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STOMACH-RECTAL
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Imitation or Substitution.

A physician in speaking of Glyco-Thymoline imitations, remarked that they reminded him of Oleomargerine—"which might be used when it was impossible to get butter."

"Imitations are at best poor substitutes and I never use them. I want the results that invariably follow the use of Glyco-Thymoline—genuine."

April 15th, 1904: Nearly five years ago, I sent you a confidential report of a case of a tubercular patient, who was treated with Protonuclein and recovered under that treatment. At present he is in perfect health, an expert mechanic and with this indoor labor he still retains the health that Protonuclein gave him. You now have my permission to publish the report given at that time, since sufficient time has elapsed to warrant it and it is without the least hesitation I endorse Protonuclein as a reconstructive.

M. W., age 27, farmer, weight (health) 140, married. Family history negative. Patient was pronounced Tuberculosis in 1883. He had two attacks of hemoptysis. The characteristic anæmia and progressive cough have been constant throughout. He has, with the exception of a few exacerbations of an accompanying Ottorhœa (tuberculosis), been able to go about and do light labor up to Nov. 6th, 1899, when he was confined to bed and sent for me. I found that the discharge from ear had gradually ceased. Cough and the mouth dry. Temperature 103, pulse 144, respirations 36. Skin subicteroid in color, tongue tremulous, red edges and tips, a brownish streak, which was nearly clear exactly in the median line, dry and showing indentations on both edges, "the tongue of a hard case." Appetite good, constipation. Urine of Jaundice with a small percentage of albumen. He was put upon eliminative treatment including entero-antiseptics (Salol and Calomel.) On the 24th of Nov. '99, the characteristics of Typhoid clearly manifested themselves, rose spots, tympanites, etc. 15 days later, pneumonic symptoms appeared and during the night of Dec. 9th, an alarming epistaxis occurred to be repeated again on the 10th and 11th. By this time he was reduced to a dangerous degree of anæmia notwithstanding the lower lobes of both lungs were solidified and unmistakeable cavenous breathing at apex of left lung. Pulse was clearly indicative of early dissolution. Hot packs, alcoholics, saline injections and vigorous, but guarded alimentations were persevered in for nine days which brought him, barely alive, out of the semidelirious state, which he had been in since Dec 2nd. At this juncture Protonuclein was introduced and ordered in 6 grain doses every 4 hours with a tablespoonful of Trophonine in the interval. All other medicine was stopped. He had at this time a temperature of 103, pulse 122, respirations 24. Cough, paroxysmal, heavy and anything but favorable. Expectoration profuse, muco purulent and streaked with bright red blood, almost completely exhausting him with each effort to have it removed from his mouth. Urine and feces often passed involuntarily. (This was Dec. 21st, 1899.) The Protonuclein and Trophonine were persevered in. Almost immediately after beginning with them the patient asked me "If the medicine had not been changed as this made him feel stronger and better than anything yet used. (He had been taking 2 to 4 ounces of whiskey and 1-20 gr. strych. in the 24 hours.) Jan 9th, 1900, I found him sitting in the rocker beside the bed, convalescence surprisingly in evidence. Every organ resuming its healthy function, his hearing was improved fully 50%, he had been heretofore about three-fourths deaf. Now he can converse in an ordinary conversation and is going about, cough almost nil, with satisfactory evidence of pulmonary cicatrization. Undoubtedly the powers of life were towed once more to action by this remedy, as nothing else has been used since Dec. 21st. I am forced to conclude that the administration of a regenerator so potent as Protonuclein, following an ordeal such as Typhoid or Pneumonia in a phthisical patient, assisted by the natural process of repair with new blood, new cells, new tissue, new life will actually overide and cure the existing tuberculous lesion.—Lewis W. Spradling, M. D., Athens, Tenn.

Blood Impoverishment.

In meeting that condition of the system embraced in the above headlines, is it not true that our first thought, and that to which our instinct naturally leads us, is iron; but viewed from the standpoint of now accepted scientific facts, is this not looking at but one phase of the question? That there is a deficiency of iron in the blood in most forms of anemia is, of course, indisputable: and to endeavor to supply this lack by the administration of iron seems but a common sense procedure. This practice would be sufficient if anemia were, in reality, nothing more than a condition of iron deficiency; but modern physicians know that the real underlying causative factor is a disturbance of the complicated processes of nutrition and metabolism, and that iron poverty is but one manifestation of this disorder. Sufficient proof of this fact has been presented to every physician when he has observed how anemic conditions persist in spite of the long continued administration of iron. Here, then, iron must be supplemented by such remedies as have the ability to awaken the depressed nutritive and metabolic processes.

To invigorate, to rekindle nervous force, to revitalize all functions, and thereby bring about a condition of systemic vigor, of which blood-enrichment is necessarily a feature, the addition of Manganese with

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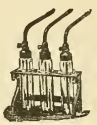
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A sedative, tonic and mild astringent; useful in stomach and intestinal disorders, Subacute Gastritis, Gastralgia, Pyrosis and kindred diseases.

LAC-BISMO has proved of great value in irritation of the intestinal and urethral mucous membrane — Diarrhœa, Intestinal Dyspepsia, Dysentery, etc.

A trial in combination with Tinct, Catechu, Tinct, Kino, Tinct, Rhubarb, etc., for the above-mentioned disorders will give most gratifying results.

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LAC-BISMO is considered a specific for ulcerated surfaces, chronic inflammation of mucous membranes, suppurating burns, etc.

Soothing in effect; prompt and certain in action.

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Bismuth Subnitrate, Bismuth Subcarbonate and Hydrated Oxide of Bismuth are presented in powder form only for dispensing purposes. As a rule, they are prescribed in conjunction with other medicaments, or alone with aromatic water as the vehicle.

Bismuth and its salts are insoluble, except in strong acids. This fact precludes the possibility of administering them in solution. As administered they form an unsatisfactory and unsightly mixture from an æsthetic standpoint. From a therapeutic standpoint the objections are more serious.

You have noticed, especially where a ℞ has been allowed so stand, that a solid precipitate is formed, which is very difficult to disintegrate. This fact renders the dose of the medicament uncertain.

LAC-BISMO is always dispensed as a uniform mixture, This obviates the objections and insures the proper dosage. Each fluid drachm represents or contains 5 grains of Medicinal Bismuth Salts.

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Iron is desirable. In Pepto-Mangan, Iron and Manganese was first brought to the attention of the profession by Dr. Gude, Chemist, and this preparation is found to be one of the best therapeutic resources of the present-day physician, and when combined with such other remedies as meet the indication, such as we have spoken of, forms at once a therapeutic arsenal whose fortress is impregnable.—*Med. Summary.*

An Obstinate Case of Gouty Eczema.

This case is interesting inasmuch as the patient, who called me in to treat an acute attack of gout, did not then mention the fact that he had, as he told me afterwards, "a chronic skin disease since he was 23 years old."

History. Patient, Mr. F., æt. 49, well nourished, no family history of gout, had dieted for years, (on advice of dermatologists whom he had consulted in Europe and in this country, for his skin affection). He had a previous attack of acute gout a year before. There was some tendency to obesity and varicose veins. He was suffering from a severe attack of gout and I put him on the usual treatment, viz: colchi-sal capsules in full doses for the first three days (16 capsules daily), and recommended him to reduce the dose to four capsules daily, as soon as the severe pain and inflammation around the articulations, were removed.

Saline purgatives were prescribed to be continued for a week at least. He responded nicely to this treatment on the third day, when I recommended him to contine the colchi-sal in doses of four capsules daily for a week and to take four during one day of each week for some time, to prevent a return of the symptoms. My patient on this occasion, showed me his arms and chest which were almost raw and so covered with old scars, that it was almost impossible to say from what form of skin disease he was suffering. These scars he complained came from the intolerable itching, owing to the heat of the bed clothes, which compelled him to scratch himself in the night. This condition he had long come to look on as a part and parcel of his daily cross, for while at times, he was less troubled than others, he was never free from it and he despaired of a cure, since all treatments had failed to relieve him permantly. Severe diet seemed to be the only effective method of getting relief.

Since he had seen so many well known authorities, who must have recognized the gouty nature of the eczema, I hardly expected to be more fortunate and I prescribed simply solutions of bicarbonate of soda to be applied and a little zinc ointment to the abrasions caused by the scratching. A week later, my patient came to my office, delighted at what he called my "cure". The irritation had entirely left him for the first time in 26 years and up to date of writing, (which is eight months since he began to take colchi-sal), there has been no return of the gouty eczema. His skin is free from redress or even signs of urticaria, but during this period, he has had two slight attacks of gout in the big toe, which however did not last long. The patient continues to take four capsules of colchi-sal one day of each week.—*M. Foucault, M. D., (Paris).*

The Trail of the Pharisee.

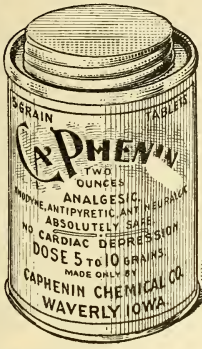
The Journal of the American Medical Association publishes an article in a recent number, read at a meeting of the Association by Wm. J. Robinson, P.H.G., M. D. The writer of the article indulges in so many preposterous statements and evinces such dense ignorance of the subject which he endeavors to discuss, that we hesitate to consider it of sufficient seriousness to be worthy of answer.

The careful reader can readily see "The Trail of the Pharisee" with his Holier than thou German Synthetics, who is so greatly scandalized by the Yankee, who knows how to compound a valuable Pharmaceutical and obtain the sanction of thousands of the very best physicians in the world who have proved its value in many emergencies.

As regards Phenalgin, we are justified in saying that some of the statements accredited to Dr. Robinson are untruthful and misleading. His description of the composition of Phenalgin either displays gross ignorance of chemistry and pharmacy, or is deliberately mendacious; in any event, it is calculated to deceive the medical profession, encourage fraud and confuse therapeutics." We know this, and knowing it to be so, are inclined to discredit the purity of his motives, and the truthfulness of his deductions as a whole.

The doctor has much to say against American products, and evolves from his alleged formulæ the conclusion that we are making too much money, while the "high class manufacturer of synthetics" yclept "acet para phenetidin," sells his "ethical" product in Canada at 12c. per ounce and mulcts the gullable Yankee to the tune of $1.00 per ounce for the same.

But what shall we say of Medical Journals, since the learned doctor has expressed his opinion? The Executive Committee will, of course, discontinue to advertise the twenty or more pages of "Ethical Nostrums" in the Journal of the American Medical Association and return a hundred



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Malarial Fever, LaGrippe, Sick or Nervous Headache, Neuralgia, and all diseases in which there is pain, fever, or the two combined.

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Two Ounces Sent Prepaid for only $1.00.

FREE SAMPLE ON APPLICATION

Dr. J. H. Tinsley, at Oria, Mo., "never used anything that equalled CaPhenin" P HENIN; it is certainly the **best thing I ever used for lagrippe, and all kinds of pain;** do not think I could get along without it. I have been in the practice of medicine for TWENTY-FOUR YEARS, and am free to say that **I never used anything that equalled it;** it relieves pain so quickly that it **seems almost like a miracle.**

Made only by CA PHENIN CHEMICAL COMPANY
203 Locust Street, WAVERLY, IOWA.

ACUTE = CYSTITIS = CHRONIC

YIELDS TO TREATMENT WITH

URISEPTIN

GIVE your patient one tablespoonful in a teacup of hot water. You will find that his urine will contain Formaldehyd in thirty minutes; one or two teaspoonfuls every three or four hours will keep it that way. The urine is rendered antiseptic. Irritation and pain subside. Healing of irritated surfaces begins promptly. The increased flow of urine flushes the entire urinary tract.

FORMULA—A Lithium Compound of Formaldehyd dissolved in Aqueous Fluid Extract of Corn Silk and Couch Grass (24 grs. to fluid ounce).

DOSE—Tea to tablespoonful every three or four hours, preferably in hot water.

At your request we will send a full size ($1.00) bottle, if you send 25 cts. to pay express.

GARDNER-BARADA CHEMICAL CO.,
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Uriseptin is also indicated in:

PYELITIS	RHEUMATISM
NEPHRITIS	CALCULUS
PROSTATITIS	GOUT
CYSTITIS	BACTERIURIA
UREMIA	PNEUMONIA

thousand dollars or so to these "fakirs," thereby withdrawing their "quasi indorsement" and be absolved of a suspicion that the Journal is published for "filthy lucre."

Of course, all self-respecting members of the Associrtions will avoid the Pharmaceutical Exhibits at Atlantic City this summer and the Entertainment Committee will decline to take their usual annual tribute from the Exhibitors and will raise the necessary funds in an ethical manner, by digging deep into their own pockets.

We are glad to note that the doctor says he is "not a crank," for they are sometimes dangerous. So, perhaps after all, the Journal will go along just the same as ever and the medical profession will give their patients what they consider best for them and take the effusions of Medico-Pharmaceutical-Munchausens, "cum grano salis."

It may be possible that the admission of Medico-Pharmacists to the councils of one of the greatest medical associations in the world, has opened a gate for the entrance of shrewd advertisers and irresponsible chemists, who are always ready to condemn anything not in accordance with their biased views. Judging from recent events, some of these accessions seem to be actuated by motives not used among men who deal with the serious questions of medicine and surgery. Etna Chemical Co., 313 West Street, New York, U. S. A., April 26th, 1904.

When Your Case is Weak Abuse the Other Side.

This maxim has been a favorite standby with the legal profession from time immemorial and unfortunately certain pharmaceutical manufacturers have recently seen fit to make use of that maxim. This is particularly true of the manufacturers of a certain iron preparation.

The impudence and effrontery with which these people try to hoodwink the medical profession is rather remarkable.

No other preparation ever came before the medical practitioner with so little detail as to methods of preparation, composition, therapeutic effect, etc., etc., and nevertheless the profession is asked to accept the wildest and most extravagant statements as to its wonder-working capabilities. This is not all. The makers of this preparation, in seeking the support of the profession covertly attack and sling mud at all other iron preparations that have been before the profession for years. They single out Pepto-Mangan, a combination which has stood the tests of the leaders in the scientific medical world both here and abroad, an organic iron combination in which, in its results, the general practitioner and the hospital clinician have learned from experience to place implicit confidence.

This unbusiness-like method of attempting to cast discredit upon other reliable and thoroughly tested combinations we cannot term otherwise than despicable, and furthermore we know our readers cannot be influenced by unsupported statements of financially interested parties, but will always bear in mind that Gude's Pepto Mangan was submitted to the profession as an organic iron product, and the results obtained by its use, as also the scrutiny of analysis by chemists of repute, substantiate all that has ever been claimed for it.

Attempting to foist upon the attention of the physician a product simply by insinuation that known articles are inferior, is a manner of doing business which should receive the stamp of disapproval by every one of our profession.—*Editorial in the Toledo Medical and Surgical Reportor, April, 1904.*

The Treatment of Serious Effusions.

The author describes what is evidently a new method of treating serious effusions. The idea occurred to him to inject one fluidrachm of Adrenalin Chloride Solution into the pleural sac, in a case of abdominal cancer extending to the pleura, after the aspiration of a large quantity of bloody serum, the object of the injection being to lessen the secretion. There was no further secretion, consequently no further tapping and the patient spent the remainder of her life in perfect comfort so far as her chest was concerned.

This treatment was extended to cases of ascites due to hepatic cirrhosis in which marked results were not expected. However, the rapidity of secretion was diminished and no ill effects were noted, the quantity of Adrenalin Solution used varying from two to three fluidrachms.

In a case of pericarditis with effusion, in a lad, 19 fluid-ounces of serum was withdrawn from the pericardium, but a reaccumulation rapidly followed. The patient's condition becoming critical the paracentesis was repeated, 20 ounces of fluid being withdrawn with immediate improvement in the quality of the pulse. Forty minims of Solution Adrenalin Chloride, 1-1000, was injected into the pericardium. The pulse at the wrist disappeared, the boy became of an ashy leaden hue and had an anxious expression. Immediately nitroglycerin and atropin were administered and the boy quickly rallied. No further tapping was required. The same patient had a subsequent attack of left pleurisy with effusion. Ten fluidounces of serum was withdrawn from the chest and one fluidrachm of Adren-

Listerine

A Non-toxic, Non-irritant, Non-escharotic Antiseptic.

Absolutely Safe, Agreeable and Convenient.

Listerine is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgically clean—aseptic—all parts of the human body, whether by spray, injection, irrigation, atomization, or simple local application.

Listerine is a swift and sure destroyer of infusorial life; it prevents the various fermentations, preserves animal tissues and inhibits the activity, growth and motion of low forms of vegetable life: hence Listerine may be relied upon to destroy the activity of the living particles which constitute contagion whenever brought into intimate contact therewith.

For diseases of the uric acid diathesis: **Lambert's Lithiated Hydrangea**

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis.

Descriptive literature may be had upon application to the Manufacturers,

LAMBERT PHARMACAL CO., St. Louis, U. S. A.

Be assured of genuine Listerine by purchasing an original Package.

alin Chloride Solution was injected. There was no reaccumulation.

In a case of tuberculous peritonitis and ascites 200 fluidounces of serum was drawn and two fluidrachms of Solution Adrenalin Chloride introduced into the peritoneal cavity, with four pints of aseptic air (to prevent adhesions). Thirteen days later 237 fluidounces of serum was withdrawn and two fluidrachms of Adrenalin Chloride Solution and two pints of air were injected. Upon a third occasion, eleven days later, 196 fluidounces of serum was obtained by tapping, and three fluidrachms of Adrenalin Chloride Solution and four pints of sterile air were injected. No reaccumulation of fluid occurred.

A female child of seven years was the next patient. One pint of fluid was withdrawn from her pleural cavity and one fluidrachm of Adrenalin Chloride Solution and half pint of sterile air were injected. Though it was highly probable that the pleurisy was tuberculous there was no reaccumulation of fluid and the patient recovered.—[Abstract of a Clinical Lecture Delivered at the Liverpool Royal Infirmary, by James Barr, M. D., F. R. C. P.]—*The British Medical Journal, March 19, 1904,*

Glyco-Thymoline in Phthisis and Tubercular Invasion of the Sub-Maxillary and Cervical Glands.

"It seems to have been thoroughly established that in most cases tubercular infection has been through the mouth and nasopharynx. This being the case, a protection of those parts from invasion is of the first consequence. In a recent note on this subject, Professor Arnulphy, of Paris, says that, in addition to other methods to protect those persons—as physicians, relatives, nurses, etc.—who are compelled to come in contact with consumptive patients, the frequent daily use of Glyco-Thymoline as a mouth, throat and nasal wash will ensure a degree of immunity from infection that reduces the danger to a minimum. To those already suffering from the disease, Glyco-Thymoline has proved of great value as a means of keeping the mouth, nose and cervical glands in an aseptic condition with a marked alleviation of cough and irritation. The action of the solution of Glyco-Thymoline on the mucous membranes is soothing and distinctly exosmotic, increasing the capillary circulation."—*New York Medical Journal, Jan. 9th, 1904.*

Improved Treatment of Cystitis.

The improved methods of diagnosing diseased conditions of the genital tract have rendered the treatment of these conditions satisfactory and effective. The introduction of new remedies calculated to antagonize the causation and spread of infectious diseases follows the discovery of the origin of the infection. The use of formaldehyd and the application of its properties as an antiseptic for internal administration has been in progress for several years. Since the introduction of uriseptin as a remedy in the treatment of bacterial diseases of the uro-genital organs the management of these cases has been greatly facilitated and the response to treatment has been more prompt and lasting. In cystitis, whether acute or chronic, uriseptin exerts a powerful influence in controlling the formation of pus and reducing inflammatory action. Following the administration of this remedy the urine becomes antiseptic to pyogenic bacteria and is rendered non-irritating to the mucous membrane and the growth of bacteria is inhibited. The liberation of formaldehyd renders the urine sterile and it becomes clear and free from pus and sediments. Uriseptin is also indicated in pyelitis, nephritis gonorrhœa, gout, rheumatism, bacteriuria—in fact wherever a urinary antiseptic or uric acid solvent is required.

There is still some difference of opinion among physicians as to whether the preparations of the active principles of cod liver oil fully replaces the administration of the oil itself. There can, however, be no difference of opinion as to the superiority of these preparations during certain periods of the year. During the summer months especially we have found them of great use, for there is a marked loathness on the part of patients to take emulsion or preparations having an oily nature. Among these preparations we have found Hagee's Cordial of Cod Liver Oil one of the most satisfactory. It is exceedingly palatable, can be taken by those with the most delicate digestion, without any disturbance of the same, and its effects are rapidly observed.—*Colorado Medical Journal.*

In the Treatment of the Disorders of Spring.

The hygienic condition of the house and vicinity must be made perfect."

This can best be done by the administration of Saline Laxative to "clean out," and the W-A Intestinal Antiseptic to "clean up" and "keep clean." If elimination is below par, give Calcalith, one tablet crushed, followed by a full glass of water four times daily. This will remove the "dirt from the corners," and leave the premises in the best possible sanitary condition.

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ANTIPHLOGISTINE'S

THERAPEUTIC ACTION is based in theory upon the following fundamental principles, its prime object being to keep the blood circulating in the diseased part:

The blood, which normally circulates fully and freely through the vascular system, is the food supply of the millions of cells which make up the body structure. Inflammation means certain successional deviations or interferences with the circulation in some part or parts. In health the functions of the vascular system are automatically controlled by the central nervous system. Three-fourths of the body composition is fluid—chemically speaking, water, and as a magnet has affinity for particles of steel, so Antiphlogistine has affinity for water. Antiphlogistine is an antiseptic, a non-conductor of heat and a vasomotor stimulant. The skin may be regarded as a permeable membrane, separating two fluids of different densities, the blood and Antiphlogistine. If Antiphlogistine is applied hot under such conditions something definite happens and that scientifically—an interchange of fluids, most marked towards Antiphlogistine; hence the deduction that Antiphlogistine acts through reflex action and dialysis, the latter scientifically including the physical processes of exosmosis and endosmosis.

DEEP-SEATED STRUCTURES—If Antiphlogistine is applied warm and thick, the thicker the better, for pneumonia, pleurisy, bronchitis, peritonitis, or any affection involving deep-seated structures, it maintains a uniform degree of heat for twenty-four hours or more; it stimulates the cutaneous reflexes, causing a contraction of the deep-seated and coincidently a dilatation of the superficial blood vessels; at the same time it attracts or draws the blood to the surface—flushes of the superficial capillaries—bleeds but saves the blood; thus the aggravating symptoms will be almost always immediately ameliorated; congestion and pain are relieved; the temperature declines; blood pressure on the overworked heart is reduced; the muscular and nervous systems are relaxed and refreshing sleep is invited.

SUPERFICIAL STRUCTURES—It is no longer proper to treat with the old fashioned bacteria-breeding flaxseed poultice, boils, felons, sprains, chronic ulcers, inflamed glands, periostitis and other types of inflammation involving comparatively superficial tissues. Antiphlogistine is a soothing antiseptic well adapted to sensitive and abraded surfaces. It draws out or absorbs the liquid exudate from the swollen and sensitive tissues, the result being that the blood is permitted to circulate freely through the affected area and nourishment is conveyed to the injured cells. Through reflex action and endosmosis a stimulating, alterative, tonic and soothing influence is exerted upon the affected cells, lymphatics and other tissues.

GENERAL DIRECTIONS—Always heat in can (never on a cloth) by placing it in hot water. Do not allow water to get into the medicine. When as hot as can be borne, take a suitable knife and apply as quickly as possible, spreading the Antiphlogistine on the skin over the affected part, at least an eighth of an inch thick and covering promptly with a liberal supply of absorbent cotton and a suitable bandage or compress. Needless exposure to the air or contact with water markedly reduces the remedial value of Antiphlogistine, hence make all applications quickly. Remove dressings as soon as they will peel off nicely—in twelve to twenty-four hours.

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Detroit Doctors at Stearns' Laboratories—Celebration of the Fifth Anniversay of the Biolog Department.

Yesterday was an unusually strenuous day at the Stearns laboratories, for it was the wooden anniversary of the biological department, which was established April 7, 1899, and several hundred Detroit physicians were the guests at the celebration. Open house was kept all day and there was an almost uninterrupted stream of visitors in response to the unique wooden invitations sent out a week before. All classes were represented, from grayhaired surgeons and specialists of more than national fame to young prospective graduates of 1904, including, of course, a fair proportion of ladies.

The regular work of the department was carried on as usual, affording the visitors an opportunity to see in actual operation all the processes used in the production of diphtheria antitoxin, streptolytic serum and glycerinated vaccine. Perhaps nothing caught their fancy more than the modern operating rooms, rivalling those of first-class hospitals, for most physicians are great sticklers for asepsis, knowing its importance. They admired the extensive brick stables, where every provision is made for the care and comfort of 120 horses yielding life-saving serums. From this also was gained an idea of the development of the business, which five years ago was started with but three horses. There were many expressions of gratification at the abundant evidences of the care with which every step is safeguarded in the manufacture of serums and vaccine.

A buffet luncheon was served in the travelers' annex, and wooden souvenirs were distributed.

In Spite of Teachers and Text-books

The days of the cotton jacket and the linseed poultice seem to be past. Perhaps the applications valued most highly by medical teachers at this time are the cold ones either in the form of ice-bags or compresses frequently changed. These when placed over the seat of disease, seem to give decided relief, to modify the temperature, and to hasten early resolution. But in spite of their advocacy in the text-books, the rank and file of the profession do not take to them kindly.

Antiphlogistine now enjoys perhaps greater popularity in the treatment of pneumonia and other acute respiratory diseases than any other local application. This popularity seems to be well-deserved. It may not modify the course of the disease to any great extent, but it certainly proves of the greatest comfort to the patient, and helps to emeliorate some of the troublesome symptoms which are characteristic of the disease. Antiphlogistine must therefore be considered a distinct addition to our therapeutic armamentarium—*The Medical Standard, March, 1904.*

New York School of Clinical Medicine.

At the meeting of the Medical Board of the New York School of Clinical Medicine held April 9, Dr. J. L. Adams was elected secretary of the school, and professorial and other distinctions were conferred upon the following in the departments specified: Mental Diseases: Professor, E. C. Dent, Superintendent Manhattan State Hospital West, Ward's Island. Internal Medicine: Professor, Wm. Brewster Clark, M. D. Gastrointestinal Disease; Professor, Robert Coleman Kemp, M. D. Associate Professor, Graham Rogers, M.D. Hydrotherapeutics: Professor, Alfred W. Gardner, M. D. Ophthalmology and Otology: Professor, Geo. Ash Taylor, M.D. Clinical Instructor and Assistant, Wm. E. West, M. D. Genitourinary Diseases: Chief of Clinic and Associate Professos, C. Stom, M. D. Dermatology: Chief of Clinic and Instructor, L. D. Weiss, M. D.

The Pain in Rheumatic Gout.

Chas. P. Heil, M. D., late Professor of Anatomy, Indiana College of Medicine, Indianapolis, Ind., in the Mobile Medical and Surgical Journal, states: "Many of the cases of rheumatic gout which I have treated were of an obstinate and complicated character and I must state that I myself have been suffering with an attack in the nature of a very severe inflammatory condition, situated in and over the articulations of my wrist, knee and ankle joints. The pain which I suffered most of the time was indiscribable. I placed myself under the care of a physician, who, upon examination, pronounced me also slightly affected with cardiac trouble. I suffered the most excruciating pain for ten days and nights, without alleviation of my sufferings, nor apparent signs of progress for the better. Knowing full well the efficiency and value of Antikamnia Tablets in these cases, I took two tablets and about ten minutes after taking them the pain was relieved, I perspired slightly and then fell into a gentle sleep. The result was simply magical. I slept eight hours in perfect rest, free from all pain. I continued the two tablets every four hours during my convalescence and until complete recovery."

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Officers of the South Carolina Medical Association for 1904.

At the fifty-sixth annual meeting of the South Carolina Medical Association, held in Darlington, April 19 to 21, the following officers were elected: President, Dr. Robert Wilson, Charleston; vice presidents, Drs. William C. Black, Greenville, James H. McIntosh, Columbia, and Edward L. Patterson, Barnwell; secretary, Dr. T. Prioleau Whaley, Charleston, and treasurer, Dr. Charles P. Aimar, Jr., Charleston.

The Mississippi State Medical Association at its Jackson meeting elected the following officers: President, Dr. T. J. Mitchell, of Jackson; Vice-Presidents, Dr. W. C. Spencer, of Verona; Dr. H. Chrismas, of Tchula, and Dr. C. M. Murnay, of Rip'ey; secretary, Dr. J. J. Harralson, of Forest; treasurer, Dr. J. F. Hunter, of Jackson.

The Georgia Medical Society, at the Macon meeting, the following officers were elected for the coming year: President, Dr. W. D. Travis, of Covington, Ga.; vice-president, Dr. J. D. Dabney, of Birmingham, Ala., and secretary and treasurer, Dr. J. R. Burdette, of Tennille, Ga.

The Florida Medical Association at its recent session at Live Oak, elected the following officers: President, Dr. E. N. Liell, of Jacksonville; first vice-president, Dr. J. W. Jackson, of Miami; second vice-president, Dr. J. F. McKinstry, of Gainesville; third vice-president, Dr. J. S. Holmes, of Tampa; secretary and treasurer, Dr. J. D. Fernandez, of Jacksonville.

The Tri-State Medical Society of Iowa, Illinois and Missouri will meet in St. Louis, June 15th, 16th and 17th. An interesting program is being prepared, and some of the most distinguished physicians and surgeons of the country will attend the meeting. The president is Dr. W. B. La Force, Ottumwa, Iowa; and Dr. Louis E. Schmidt, 1003 Schiller Building, Chicago, is the Secretary. Dr. James Moores Ball, 3509 Franklin Avenue, St. Louis, is Chairman of the Committee of Arrangements.

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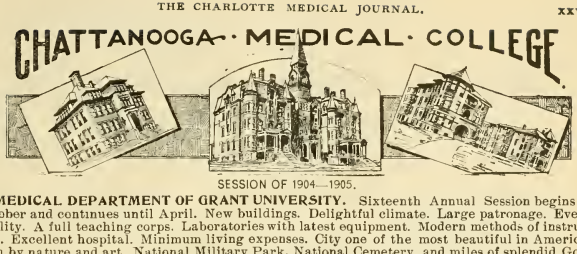

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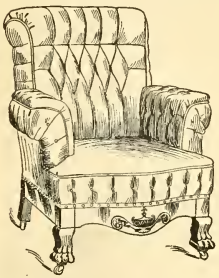

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